VISHAY
The DNA of tech.™

Product Termination Notification

PTN

Product Group: SIL/Thursday February 19, 2026/PTN-SIL-013-2026-REV-0

Conversion to Copper (Cu) Wire – SQ4532AEY

For further information, please contact your regional Vishay office.

CONTACT INFORMATION

Americas

Vishay Siliconix
2565 Junction Ave
-
San Jose CA United States 95134
Phone: (408) 988-8000
Fax:
business-americas@vishay.com

Europe

Vishay Electronic GmbH
Dr.-Felix-Zandman-Platz 1
-
Selb Germany 95100
Phone: 49-9287-71 0
Fax: 49-9287-70435
business-europe@vishay.com

Asia

Vishay Intertechnology Asia Pte. Ltd
37A Tampines Street 92 #07-01
-
Singapore Singapore 528886
Phone: 65 6788 6668
Fax: 65 6788 0988
business-asia@vishay.com

Description of Change: The affected part number listed in this notification will be converted from gold (Au) bond wire to a copper (Cu) wire material set. The new ordering code is SQ4532CEY-T1_GE3 which has identical silicon technology and silicon die design as SQ4532AEY. Small changes to the data sheet AC parameters are a consequence of lot to lot variation and/or updated characterization methods and some specifications are improved without negative impact (reference: SQ4532CEY Doc # 61727 Rev. A). Device performance in the application will not be impacted. There will be no change to the wafer fab location.

Reason for Change: Standardization of materials

Expected Influence on Quality/Reliability/Performance: None

Part Numbers/Series/Families Affected: SQ4532AEY-T1_GE3, SQ4532AEY-T1_BE3,

Vishay Brand(S): Vishay Siliconix

Time Schedule:

Last Time Buy Date: Sunday August 23, 2026

Last Time Ship Date: Monday February 22, 2027

Sample Availability: Qualified samples of replacement product are available on request.

Product Identification: SQ4532CEY-T1_GE3

Qualification Data: AEC Q101 qualification data of replacement product is available. Qualification PPAP is available on request.

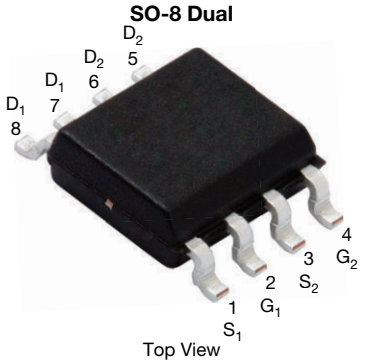
This PTN is considered approved, without further notification, unless we receive specific customer concerns before Sunday July 26, 2026 or as specified by contract.

Issued By: Lance Gurrola, automostechsupport@vishay.com

© 2021 VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED.

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

Automotive N-and P-Channel 30 V (D-S) 175 °C MOSFET



Marking Code: Q4532C

FEATURES

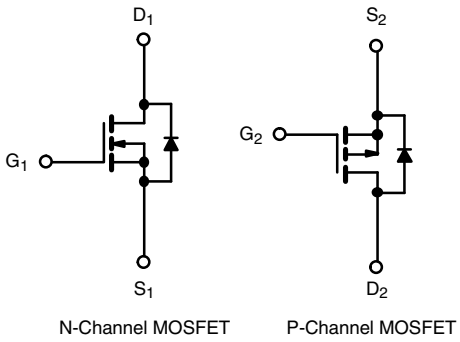
- TrenchFET® power MOSFET
- AEC-Q101 qualified [c]
- 100 % R_g and UIS tested
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE



PRODUCT SUMMARY		
	N-CHANNEL	P-CHANNEL
V_{DS} (V)	30	-30
$R_{DS(on)}$ (Ω) at V_{GS} = ± 10 V	0.031	0.070
$R_{DS(on)}$ (Ω) at V_{GS} = ± 4.5 V	0.042	0.190
I_D (A)	7.3	-5.3
Configuration	N- and p-pair	

ORDERING INFORMATION	
Package	SO-8
Lead (Pb)-free and halogen-free	SQ4532CEY (for detailed order number please see www.vishay.com/doc?79771)

ABSOLUTE MAXIMUM RATINGS (T_C = 25 °C, unless otherwise noted)					
PARAMETER		SYMBOL	N-CHANNEL	P-CHANNEL	UNIT
Drain-source voltage		V_{DS}	30	-30	V
Gate-source voltage		V_{GS}	± 20		
Continuous drain current	T_C = 25 °C	I_D	7.3	-5.3	A
	T_C = 125 °C		4.2	-3	
Continuous source current (diode conduction)		I_S	4.2	-3	
Pulsed drain current [a]		I_{DM}	29	-21	
Single pulse avalanche current	L = 0.1 mH	I_{AS}	10	-9	
Single pulse avalanche energy		E_{AS}	5	4	mJ
Maximum power dissipation [a]	T_C = 25 °C	P_D	3.3	3.3	W
	T_C = 125 °C		1.1	1.1	
Operating junction and storage temperature range		T_J, T_{stg}	-55 to +175		°C

THERMAL RESISTANCE RATINGS					
PARAMETER		SYMBOL	N-CHANNEL	P-CHANNEL	UNIT
Junction-to-ambient	PCB mount [b]	R_{thJA}	110	105	°C/W
Junction-to-foot (drain)		R_{thJF}	45	45	

Notes

a. Pulse test; pulse width ≤ 300 µs, duty cycle ≤ 2 %
b. When mounted on 1" square PCB (FR4 material)
c. Parametric verification ongoing

For technical questions, contact: automostechsupport@vishay.com

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

SPECIFICATIONS (T_C = 25 °C, unless otherwise noted)								
PARAMETER	**SYMBOL**	**TEST CONDITIONS**			**MIN.**	**TYP.**	**MAX.**	**UNIT**
Static								
Drain-source breakdown voltage	V_{DS}	V_{GS} = 0, I_D = 250 µA		N-Ch	30	-	-	V
		V_{GS} = 0, I_D = -250 µA		P-Ch	-30	-	-	
Gate-source threshold voltage	$V_{GS(th)}$	V_{DS} = V_{GS}, I_D = 250 µA		N-Ch	1.5	2	2.5	
		V_{DS} = V_{GS}, I_D = -250 µA		P-Ch	-1.5	-2	-2.5	
Gate-source leakage	I_{GSS}	V_{DS} = 0 V, V_{GS} = ± 20 V		N-Ch	-	-	± 100	nA
				P-Ch	-	-	± 100	
Zero gate voltage drain current	I_{DSS}	V_{GS} = 0 V	V_{DS} = 30 V	N-Ch	-	-	1	µA
		V_{GS} = 0 V	V_{DS} = -30 V	P-Ch	-	-	-1	
		V_{GS} = 0 V	V_{DS} = 30 V, T_J = 125 °C	N-Ch	-	-	50	
		V_{GS} = 0 V	V_{DS} = -30 V, T_J = 125 °C	P-Ch	-	-	-50	
		V_{GS} = 0 V	V_{DS} = 30 V, T_J = 175 °C	N-Ch	-	-	150	
		V_{GS} = 0 V	V_{DS} = -30 V, T_J = 175 °C	P-Ch	-	-	-150	
On-state drain current [a]	$I_{D(on)}$	V_{GS} = 10 V	V_{DS} = 5 V	N-Ch	15	-	-	A
		V_{GS} = -10 V	V_{DS} = -5 V	P-Ch	-15	-	-	
Drain-source on-state resistance [a]	$R_{DS(on)}$	V_{GS} = 10 V	I_D = 3.9 A	N-Ch	-	0.021	0.031	Ω
		V_{GS} = -10 V	I_D = -2.5 A	P-Ch	-	0.056	0.070	
		V_{GS} = 10 V	I_D = 3.9 A, T_J = 125 °C	N-Ch	-	-	0.064	
		V_{GS} = -10 V	I_D = -2.5 A, T_J = 125 °C	P-Ch	-	-	0.100	
		V_{GS} = 10 V	I_D = 3.9 A, T_J = 175 °C	N-Ch	-	-	0.082	
		V_{GS} = -10 V	I_D = -2.5 A, T_J = 175 °C	P-Ch	-	-	0.117	
		V_{GS} = 4.5 V	I_D = 3.1 A	N-Ch	-	0.033	0.042	
		V_{GS} = -4.5 V	I_D = -1.8 A	P-Ch	-	0.157	0.190	
Forward transconductance [b]	g_{fs}	V_{DS} = 15 V, I_D = 3.5 A		N-Ch	-	22	-	S
		V_{DS} = -15 V, I_D = -4.0 A		P-Ch	-	5.5	-	
Dynamic [b]								
Input capacitance	C_{iss}	V_{GS} = 0 V	V_{DS} = 15 V, f = 1 MHz	N-Ch	-	357	535	pF
		V_{GS} = 0 V	V_{DS} = -15 V, f = 1 MHz	P-Ch	-	352	528	
Output capacitance	C_{oss}	V_{GS} = 0 V	V_{DS} = 15 V, f = 1 MHz	N-Ch	-	82	123	
		V_{GS} = 0 V	V_{DS} = -15 V, f = 1 MHz	P-Ch	-	95	142	
Reverse transfer capacitance	C_{rss}	V_{GS} = 0 V	V_{DS} = 15 V, f = 1 MHz	N-Ch	-	36	53	
		V_{GS} = 0 V	V_{DS} = -15 V, f = 1 MHz	P-Ch	-	59	88	
Total gate charge	Q_g	V_{GS} = 10 V	V_{DS} = 15 V, I_D = 3.9 A	N-Ch	-	5.9	7.8	nC
		V_{GS} = -10 V	V_{DS} = -15 V, I_D = -2.5 A	P-Ch	-	7.9	10.2	
Gate-source charge	Q_{gs}	V_{GS} = 10 V	V_{DS} = 15 V, I_D = 3.9 A	N-Ch	-	1	-	
		V_{GS} = -10 V	V_{DS} = -15 V, I_D = -2.5 A	P-Ch	-	1.1	-	
Gate-drain charge [c]	Q_{gd}	V_{GS} = 10 V	V_{DS} = 15 V, I_D = 3.9 A	N-Ch	-	1.9	-	
		V_{GS} = -10 V	V_{DS} = -15 V, I_D = -2.5 A	P-Ch	-	2.7	-	
Gate resistance	R_g	f = 1 MHz		N-Ch	1.7	3.4	5.1	Ω
				P-Ch	2.8	5.8	8.6	

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

SPECIFICATIONS (T_C = 25 °C, unless otherwise noted)							
PARAMETER	**SYMBOL**	**TEST CONDITIONS**		**MIN.**	**TYP.**	**MAX.**	**UNIT**
Turn-on delay time	$t_{d(on)}$	V_{DD} = 15 V, R_L = 15 Ω $I_D \cong$ 1 A, V_{GEN} = 10 V, R_g = 1 Ω	N-Ch	-	6	9	ns
		V_{DD} = -15 V, R_L = 15 Ω $I_D \cong$ -1 A, V_{GEN} = -10 V, R_g = 1 Ω	P-Ch	-	7	11	
Rise time	t_r	V_{DD} = 15 V, R_L = 15 Ω $I_D \cong$ 1 A, V_{GEN} = 10 V, R_g = 1 Ω	N-Ch	-	3	6	
		V_{DD} = -15 V, R_L = 15 Ω $I_D \cong$ -1 A, V_{GEN} = -10 V, R_g = 1 Ω	P-Ch	-	4	8	
Turn-off delay time	$t_{d(off)}$	V_{DD} = 15 V, R_L = 15 Ω $I_D \cong$ 1 A, V_{GEN} = 10 V, R_g = 1 Ω	N-Ch	-	15	23	
		V_{DD} = -15 V, R_L = 15 Ω $I_D \cong$ -1 A, V_{GEN} = -10 V, R_g = 1 Ω	P-Ch	-	19	29	
Fall time	t_f	V_{DD} = 15 V, R_L = 15 Ω $I_D \cong$ 1 A, V_{GEN} = 10 V, R_g = 1 Ω	N-Ch	-	2	4	
		V_{DD} = -15 V, R_L = 15 Ω $I_D \cong$ -1 A, V_{GEN} = -10 V, R_g = 1 Ω	P-Ch	-	4	8	
Source-Drain Diode Ratings and Characteristics [b]							
Pulsed current [a]	I_{SM}		N-Ch	-	-	29	A
			P-Ch	-	-	-21	
Forward voltage	V_{SD}	I_S = 2 A	N-Ch	-	0.8	1.2	V
		I_S = -1.5 A	P-Ch	-	-0.8	-1.2	

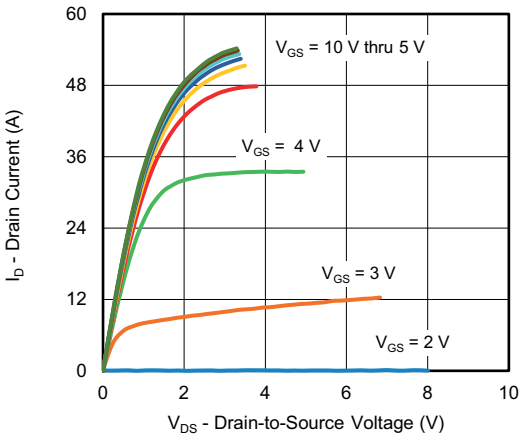
Notes

a. Pulse test; pulse width ≤ 300 µs, duty cycle ≤ 2 %
b. Guaranteed by design, not subject to production testing
c. Independent of operating temperature

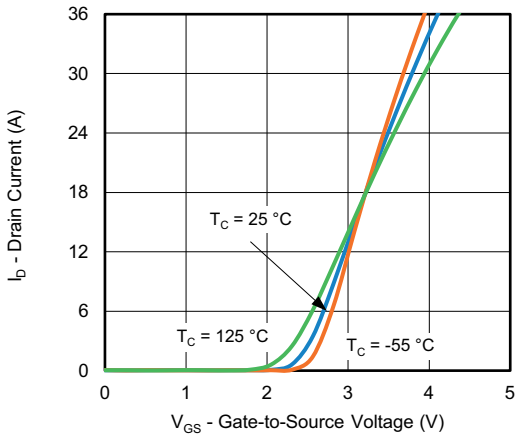
Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

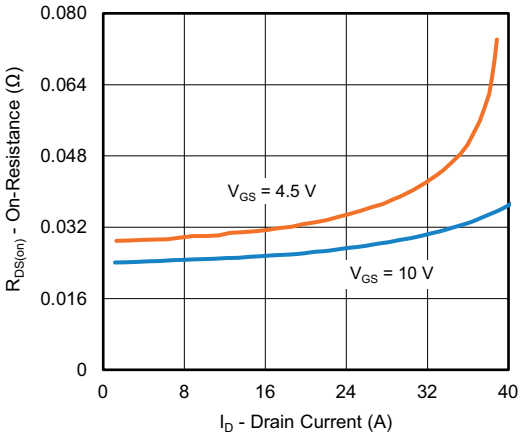
N-CHANNEL TYPICAL CHARACTERISTICS (T_A = 25 °C, unless otherwise noted)



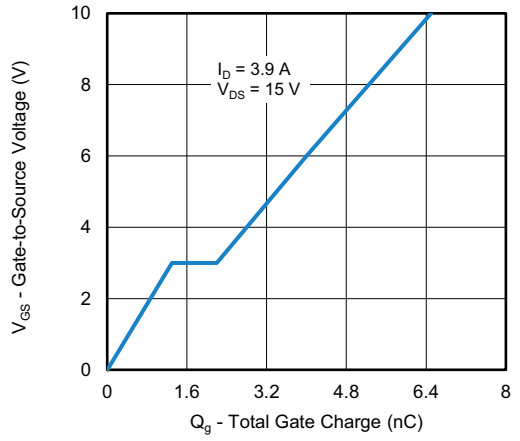
Output Characteristics



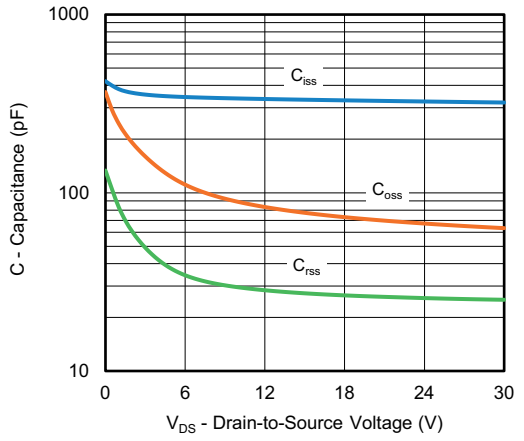
Transfer Characteristics



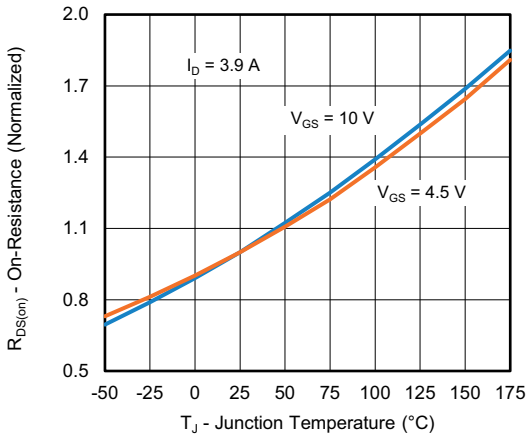
On-Resistance vs. Drain Current



Gate Charge



Capacitance

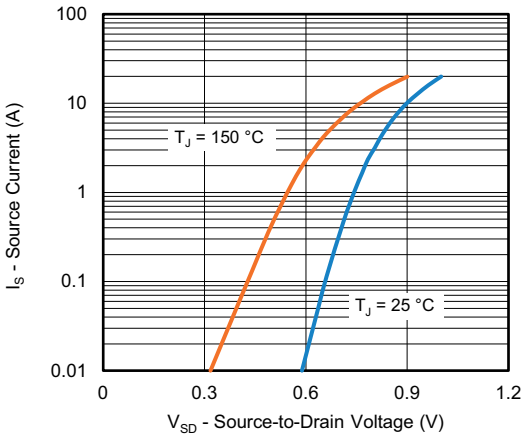


On-Resistance vs. Junction Temperature

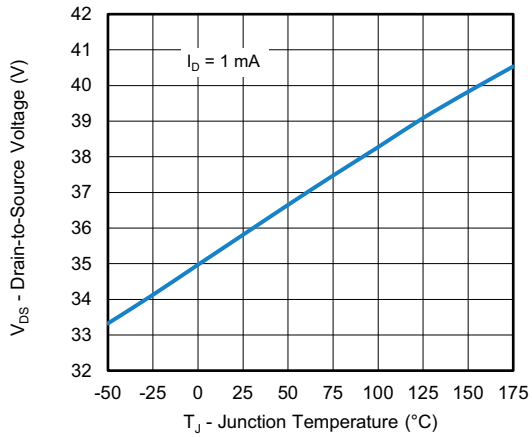
For technical questions, contact: automostechsupport@vishay.com

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

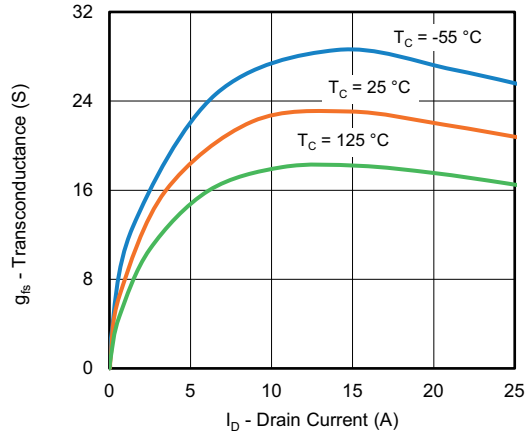
N-CHANNEL TYPICAL CHARACTERISTICS (T_A = 25 °C, unless otherwise noted)



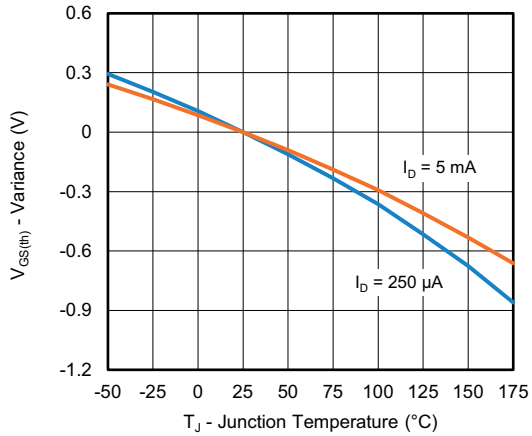
Source Drain Diode Forward Voltage



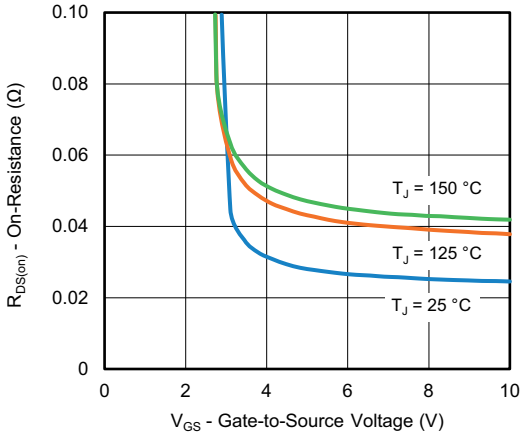
Drain Source Breakdown vs. Junction Temperature



Transconductance



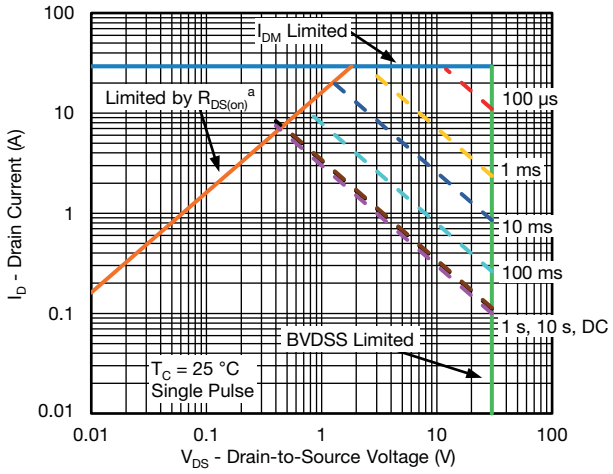
Threshold Voltage



On-Resistance vs. Gate-to-Source Voltage

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

N-CHANNEL THERMAL RATINGS (T_A = 25 °C, unless otherwise noted)



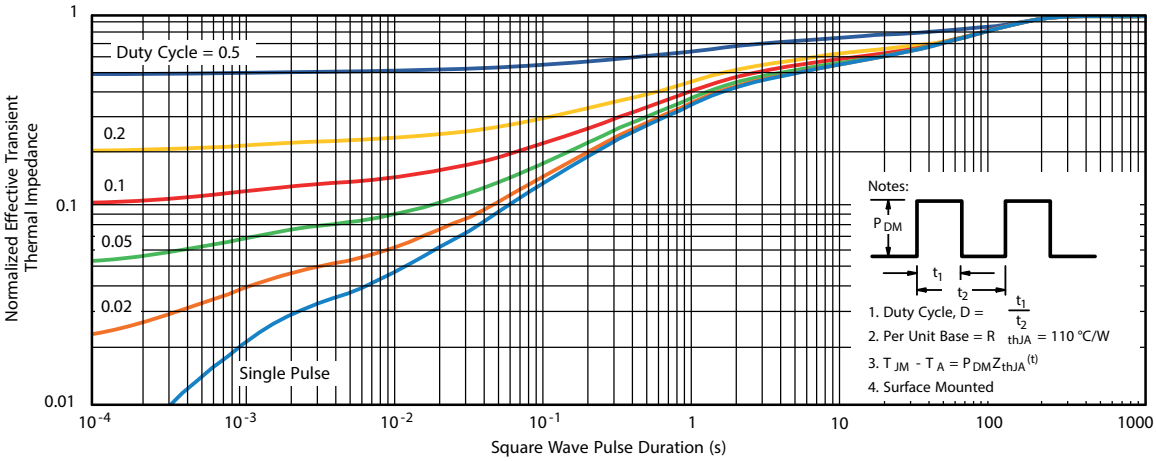
Safe Operating Area

Note

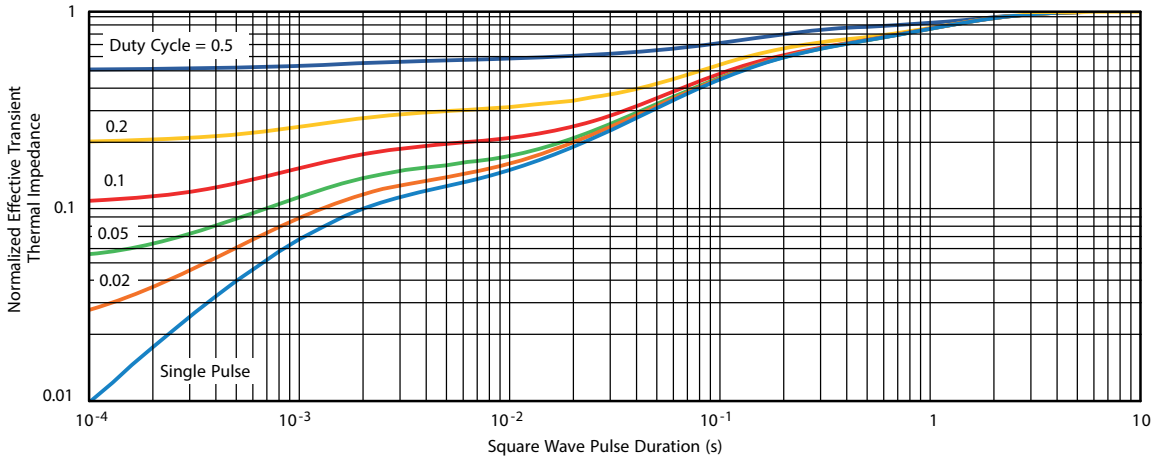
a. V_{GS} > minimum V_{GS} at which $R_{DS(on)}$ is specified

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

N-CHANNEL THERMAL RATINGS (T_A = 25 °C, unless otherwise noted)



Normalized Thermal Transient Impedance, Junction-to-Ambient



Normalized Thermal Transient Impedance, Junction-to-Foot

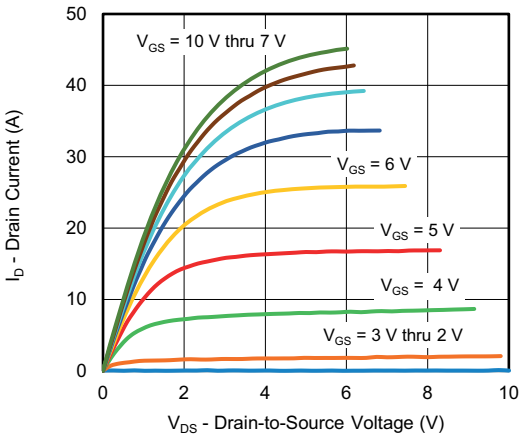
Note

- The characteristics shown in the two graphs
  - Normalized Transient Thermal Impedance Junction-to-Ambient (25 °C)
  - Normalized Transient Thermal Impedance Junction-to-Case (25 °C)

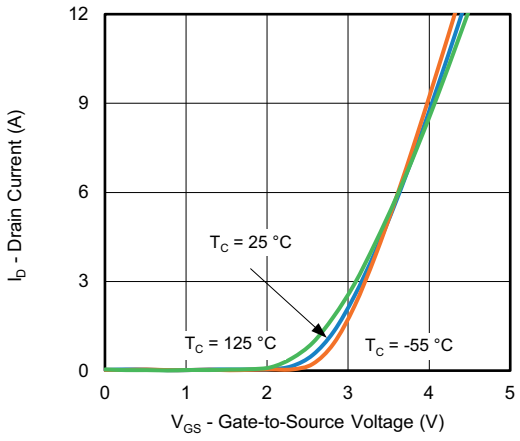
  are given for general guidelines only to enable the user to get a “ball park” indication of part capabilities. The data are extracted from single pulse transient thermal impedance characteristics which are developed from empirical measurements. The latter is valid for the part mounted on printed circuit board - FR4, size 1" x 1" x 0.062", double sided with 2 oz. copper, 100 % on both sides. The part capabilities can widely vary depending on actual application parameters and operating conditions.

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

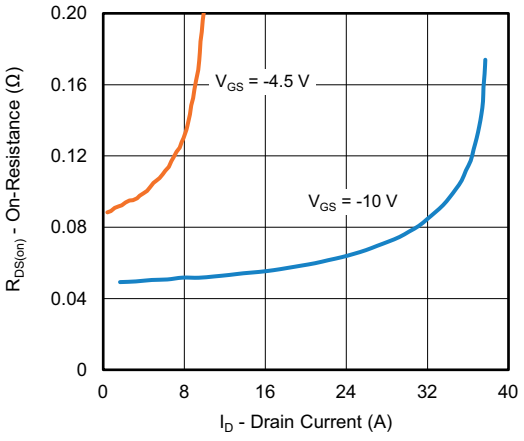
P-CHANNEL TYPICAL CHARACTERISTICS (T_A = 25 °C, unless otherwise noted)



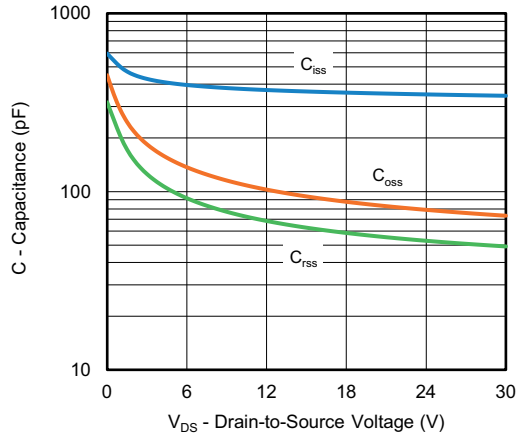
Output Characteristics



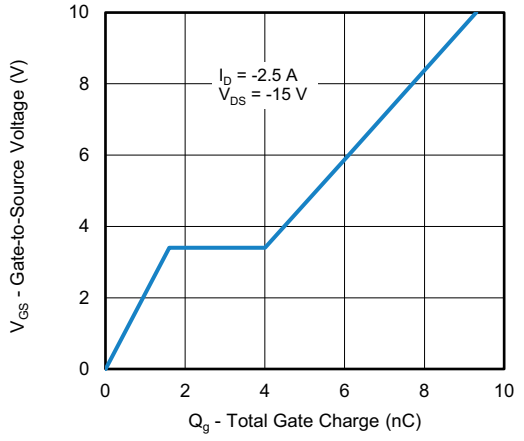
Transfer Characteristics



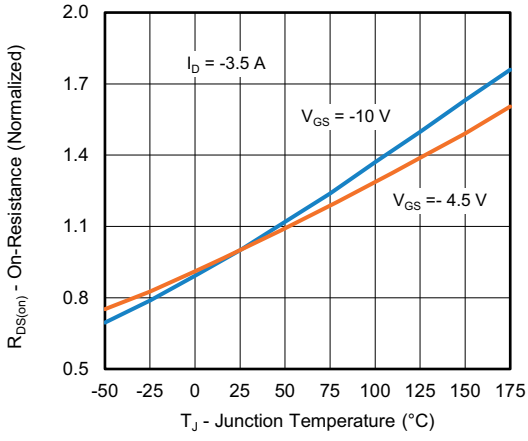
On-Resistance vs. Drain Current



Capacitance



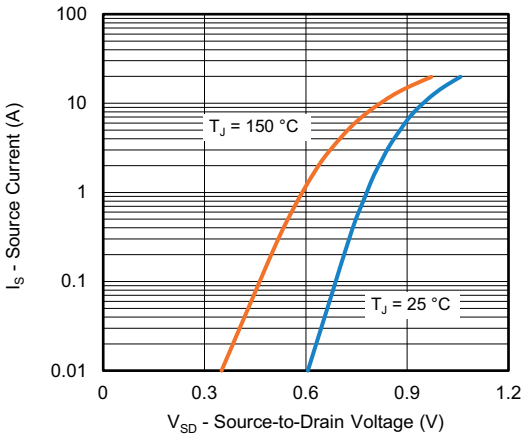
Gate Charge



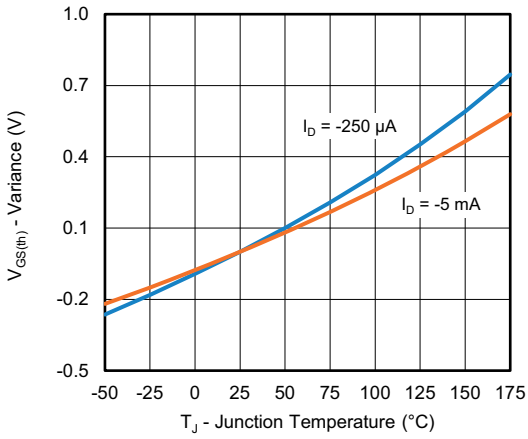
On-Resistance vs. Junction Temperature

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

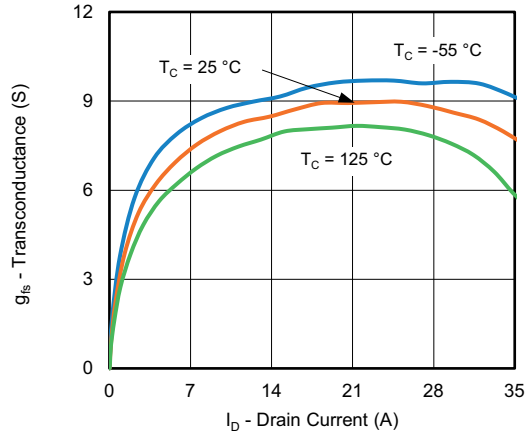
P-CHANNEL TYPICAL CHARACTERISTICS (T_A = 25 °C, unless otherwise noted)



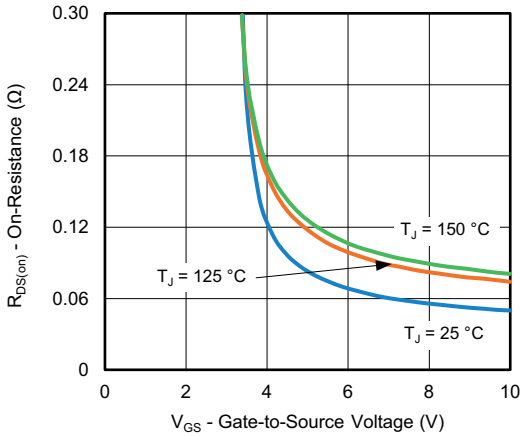
Source Drain Diode Forward Voltage



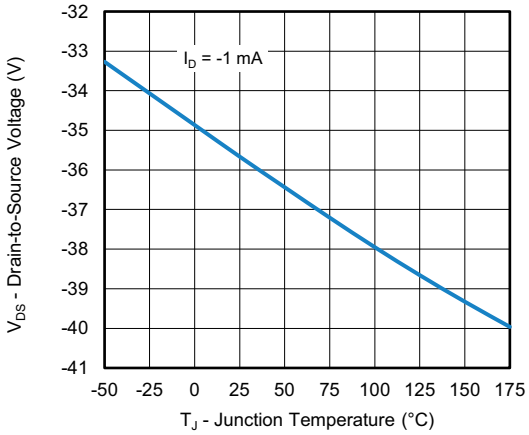
Threshold Voltage



Transconductance



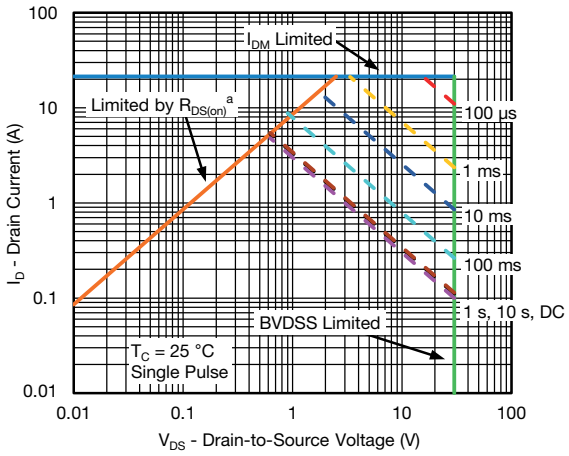
On-Resistance vs. Gate-to-Source Voltage



Drain Source Breakdown vs. Junction Temperature

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

P-CHANNEL THERMAL RATINGS (T_A = 25 °C, unless otherwise noted)



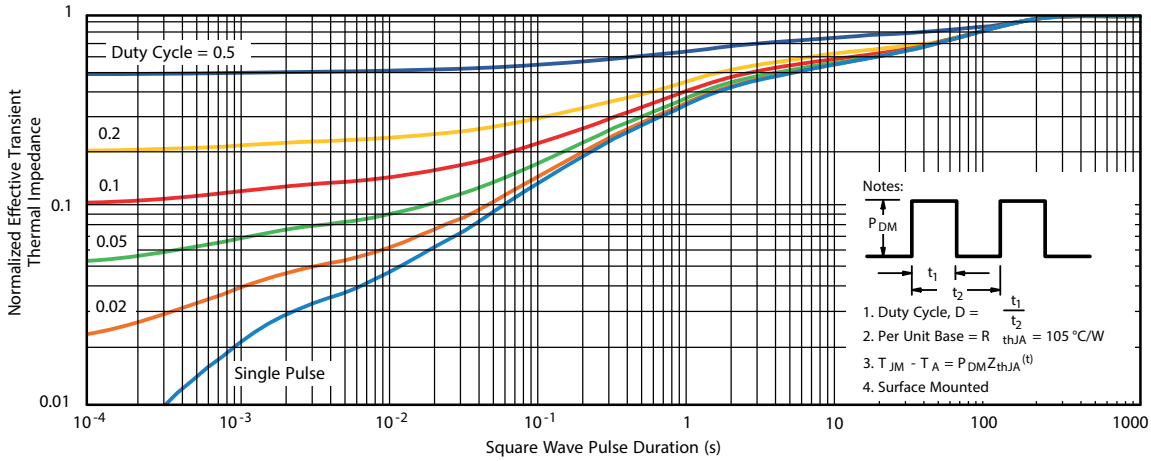
Safe Operating Area

Note

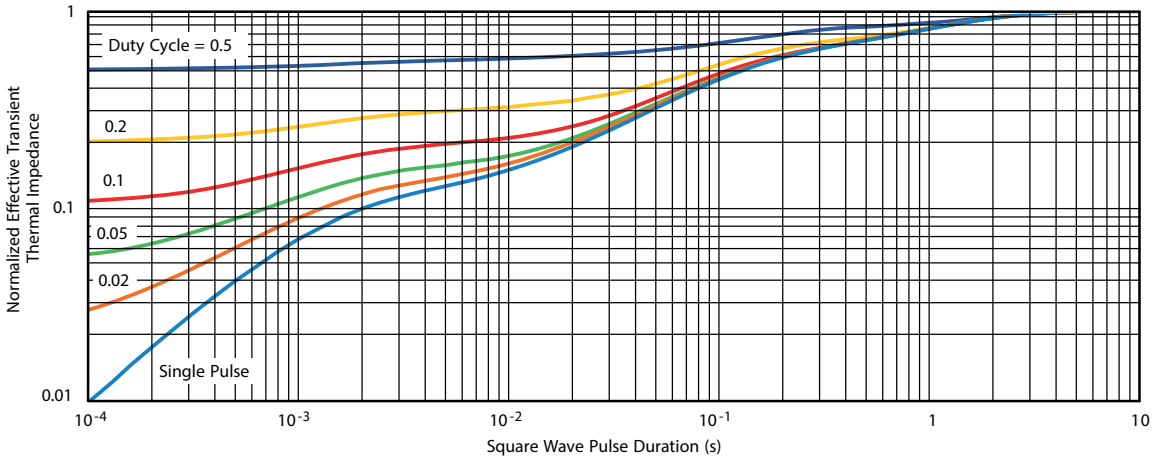
a. V_{GS} > minimum V_{GS} at which $R_{DS(on)}$ is specified

For technical questions, contact: automostechsupport@vishay.com
THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

P-CHANNEL THERMAL RATINGS (T_A = 25 °C, unless otherwise noted)



Normalized Thermal Transient Impedance, Junction-to-Ambient



Normalized Thermal Transient Impedance, Junction-to-Foot

Note

- The characteristics shown in the two graphs
  - Normalized Transient Thermal Impedance Junction-to-Ambient (25 °C)
  - Normalized Transient Thermal Impedance Junction-to-Case (25 °C)

  are given for general guidelines only to enable the user to get a “ball park” indication of part capabilities. The data are extracted from single pulse transient thermal impedance characteristics which are developed from empirical measurements. The latter is valid for the part mounted on printed circuit board - FR4, size 1" x 1" x 0.062", double sided with 2 oz. copper, 100 % on both sides. The part capabilities can widely vary depending on actual application parameters and operating conditions.

Vishay Siliconix maintains worldwide manufacturing capability. Products may be manufactured at one of several qualified locations. Reliability data for Silicon Technology and Package Reliability represent a composite of all qualified locations. For related documents such as package / tape drawings, part marking, and reliability data, see www.vishay.com/ppg?61727.

For technical questions, contact: automostechsupport@vishay.com

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

© 2026 VISHAY INTERTECHNOLOGY, INC. ALL RIGHTS RESERVED

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

Vishay Material Code	Customer Material	Location
SQ4532AEY-T1_BE3	SLNSQ4532AEY-T1-BE3	Ft Worth