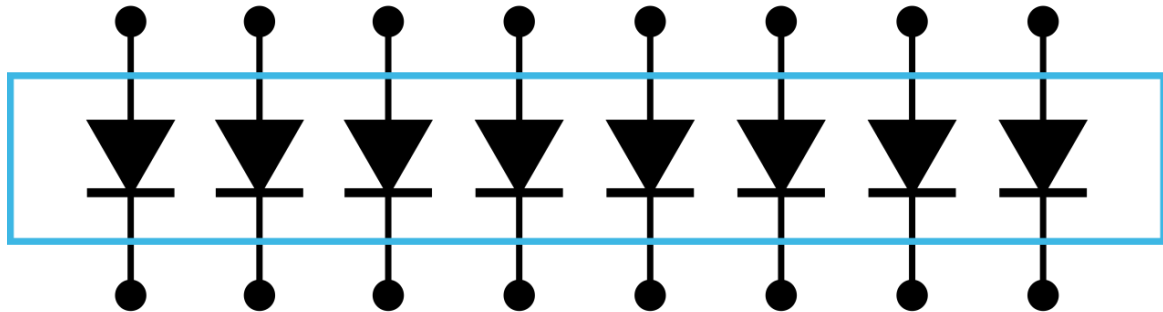
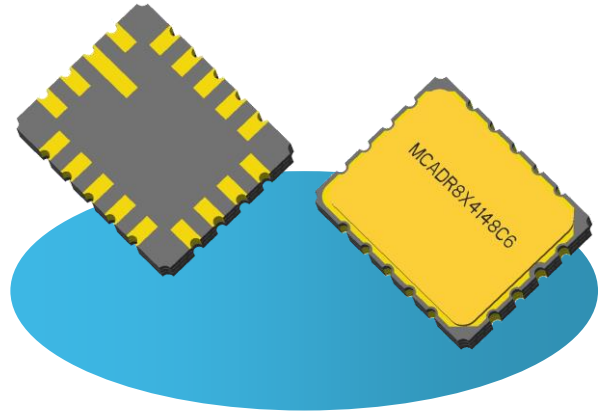


MULTI CHIP ARRAY 8 x ISOLATED 1N4148 DIODES MCADR8X4148C6

- Low Leakage
- Fast Switching Rectifier 8x Isolated Diode Array
- Low Forward Voltage
- Hermetic Ceramic Surface Mount LCC6 (MO-042AA) Package
- Suitable For General Purpose, Switching Applications
- Screening Options Available



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise stated)

		Per Diode ⁽¹⁾	Total Device ⁽²⁾
V _{BR}	Breakdown Voltage	100V	
V _{RWM}	Working Peak Reverse Voltage	75V	
I _O	Average Rectified Output Current, T _A = 75°C	200mA	
I _{FSM}	Surge Current, Half Sine Wave, t _p = 8.3ms	2A	
P _D	Total Power Dissipation at T _{sp} = 75°C	1.042W	5W
	Derate Above 75°C	8.33mW/°C	40mW/°C
T _J	Junction Temperature Range	-65°C to +200°C	
T _{stg}	Storage Temperature Range	-65°C to +200°C	

THERMAL PROPERTIES

Symbols	Parameters	Per Diode Max. ⁽¹⁾	Total Device Max. ⁽²⁾
R _{θJSP} ⁽³⁾	Thermal Resistance, Junction To Solder Pads	120°C/W	25°C/W

Notes

- (1) One diode conducting only.
- (2) With all diodes conducting, maximum power dissipation per diode = 500mW, limited by maximum junction temperature while maintaining the solder point at 75°C.
- (3) Stated R_{θJSP} properties assume infinite heatsink.

Semelab Limited reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

MULTI CHIP ARRAY 8 x ISOLATED 1N4148 DIODES MCADR8X4148C6



ELECTRICAL CHARACTERISTICS (Per Diode, $T_A = 25^\circ\text{C}$ unless otherwise stated)

Symbols	Parameters	Test Conditions	Min.	Typ.	Max.	Units
V_{BR}	Breakdown Voltage	$I_R = 100\mu\text{A}$	100			
$V_F^{(4)}$	Forward Voltage	$I_F = 10\text{mA}$			0.8	V
		$T_A = 150^\circ\text{C}$			0.8	
		$I_F = 100\text{mA}$			1.2	
		$T_A = -55^\circ\text{C}$			1.3	
I_R	Reverse Current	$V_R = 20\text{V}$			25	nA
		$T_A = 150^\circ\text{C}$			35	μA
		$V_R = 75\text{V}$			500	nA
		$T_A = 150^\circ\text{C}$			75	μA

DYNAMIC CHARACTERISTICS (Per Diode, $T_A = 25^\circ\text{C}$ unless otherwise stated)

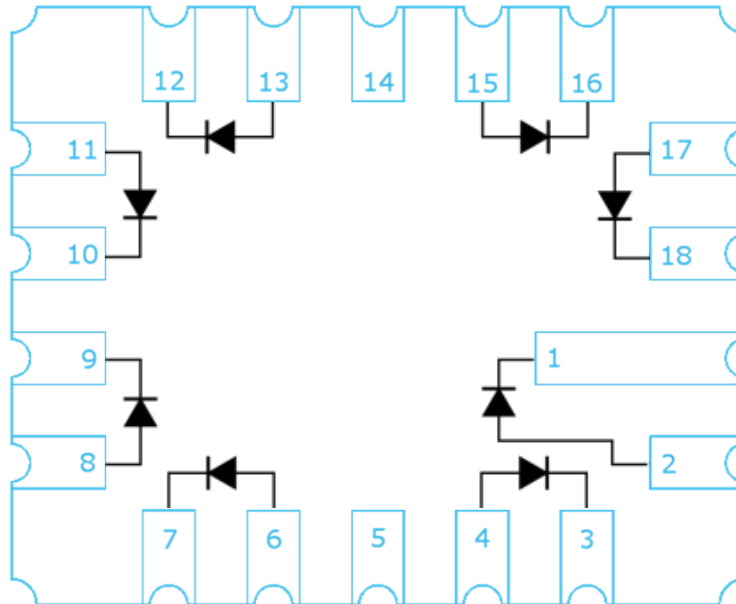
$C^{(5)}$	Capacitance	$V_R = 0\text{V}$	$f = 1.0\text{MHz}$			4	pF
		$V_R = 1.5\text{V}$				2.8	
$t_{rr}^{(5)}$	Reverse Recovery Time	$I_F = I_R = 10\text{mA}$ $I_{REC} = 1.0\text{mA}$	$R_L = 100\Omega$			5	ns
$t_{fr}^{(5)}$	Forward Recovery Time	$I_F = 50\text{mA}$				20	
$V_{fr}^{(5)}$	Forward Recovery Voltage						5.0

Notes

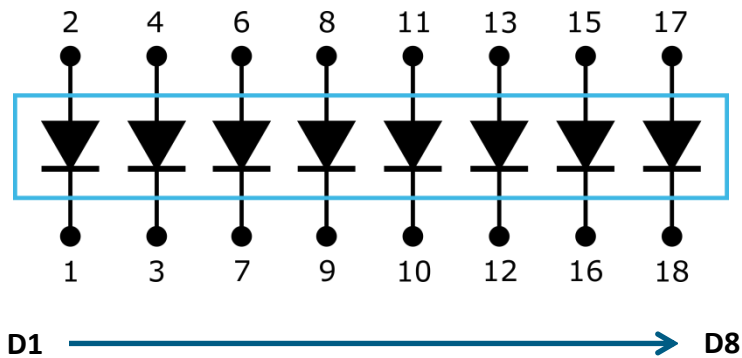
- (4) Pulse Width $\leq 380\mu\text{s}$, $\delta \leq 2\%$.
 (5) By Design. Not a production test.

MULTI CHIP ARRAY 8 x ISOLATED 1N4148 DIODES MCADR8X4148C6

INTERNAL LAYOUT VISUALISATION



PACKAGE PIN CONNECTIONS

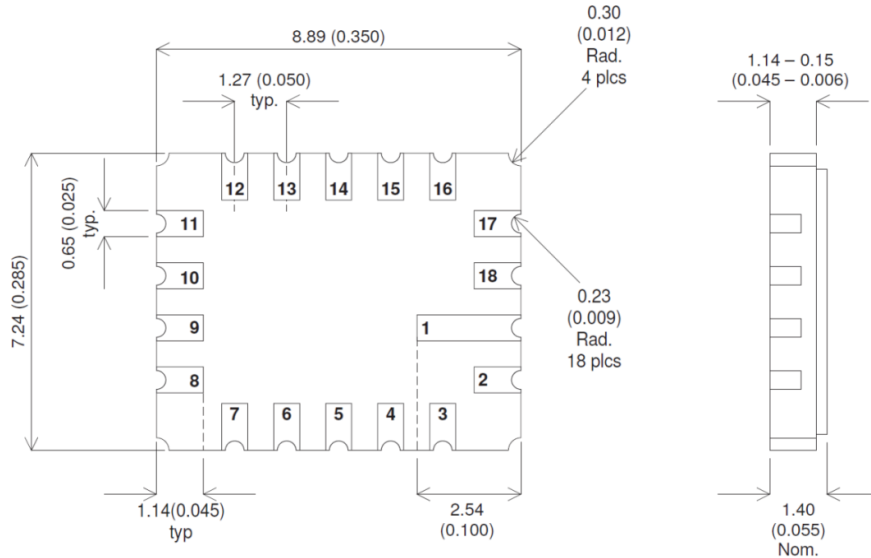


Pin	Device	Connection	Pin	Device	Connection
1	D1	Cathode	10	D5	Cathode
2	D1	Anode	11	D5	Anode
3	D2	Cathode	12	D6	Cathode
4	D2	Anode	13	D6	Anode
5	-	N/C	14	-	N/C
6	D3	Anode	15	D7	Anode
7	D3	Cathode	16	D7	Cathode
8	D4	Anode	17	D8	Anode
9	D4	Cathode	18	D8	Cathode

MULTI CHIP ARRAY 8 x ISOLATED 1N4148 DIODES MCADR8X4148C6

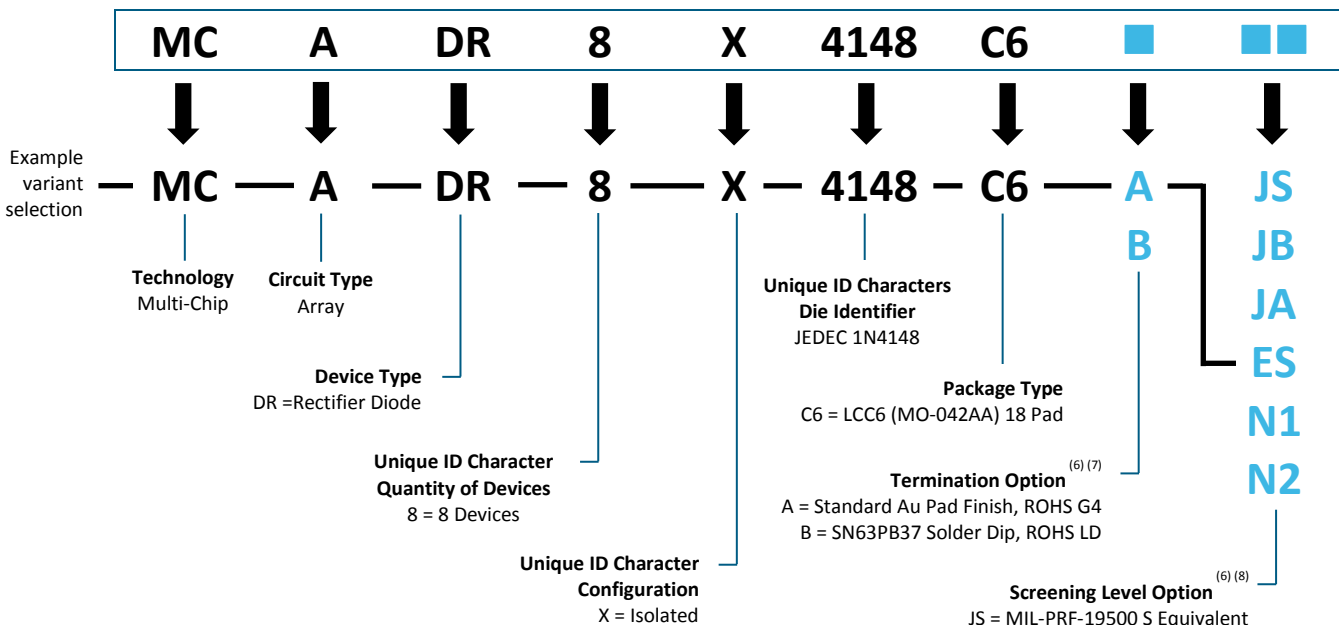
MECHANICAL DATA

Dimensions in mm (inches)



**C6 (MO-042AA)
(Underside View)**

PART VARIANT OPTIONS ⁽⁶⁾



Notes

- (6) Part variant options (termination, screening level) to be specified at point of order.
- (7) LD = e0, G4 = e4, as defined in J-STD-609 2nd Level Interconnect Category.
- (8) Please enquire with customer services regarding other requirements (pin connections, termination & screening level).