



MMBD4448W6

SURFACE MOUNT FAST SWITCHING DIODE ARRAY

FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

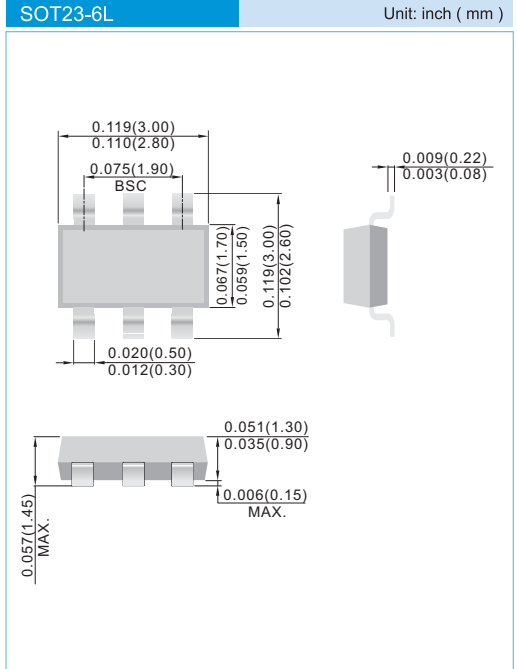
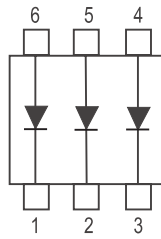
Case: SOT23-6L, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.014 grams

Polarity: See Diagram Below

Marking Code : B48



MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage	V _{RRM}	80	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	57	V
Forward Continuous Current (Note1)	I _{FM}	500	mA
Average Rectified Output Current (Note1)	I _O	250	mA
Non-Repetitive Peak Forward Surge Current @t=1.0μs	I _{FSM}	4.0	A
@t=1.0s		2.0	

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P _D	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	357	°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C



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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Max	Unit
Reverse Breakdown Voltage (Note 2)	V_{BR}	$I_R=2.5\mu\text{A}$	80	-	V
Forward Voltage	V_F	$I_F=5.0\text{mA}$ $I_F=10\text{mA}$ $I_F=100\text{mA}$ $I_F=150\text{mA}$	0.62 - - -	0.720 0.855 1.000 1.250	V
Reverse Current (Note 2)	I_R	$V_R=75\text{V}$ $V_R=75\text{V}, T_J=150^\circ\text{C}$ $V_R=25\text{V}, T_J=150^\circ\text{C}$ $V_R=20\text{V}$	-	2.5 50 30 25	μA μA μA nA
Total Capacitance	C_T	$V_R=6\text{V}, f=1.0\text{MHz}$	-	3.5	pF
Reverse Recovery Time	T_{RR}	$V_R=6\text{V}, I_F=5\text{mA}$	-	4.0	ns

Notes : 1.Device mounted on FR-4 PCB 70 x 60 x 1mm pad layout.

2.Short duration pulse test used to minimize self-heating effect.

3.No purposely added lead.

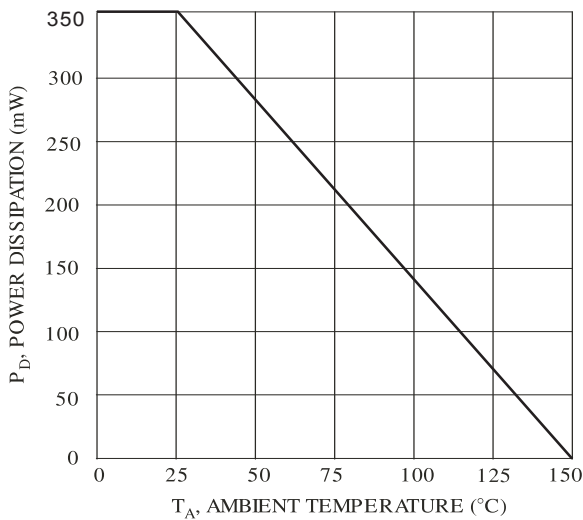


Fig. 1 Power Derating Curve, Total Package

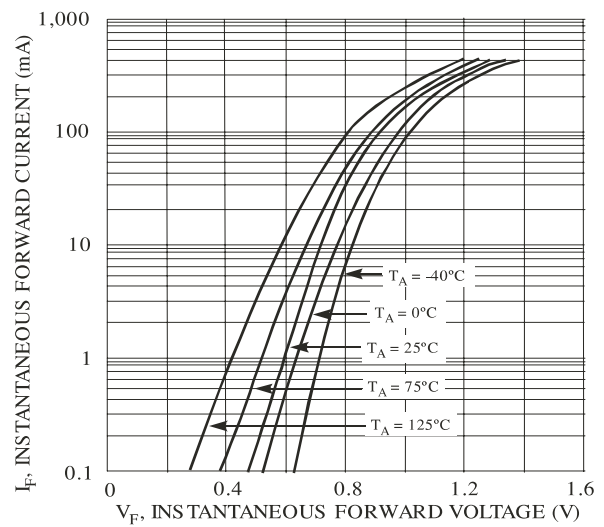


Fig. 2 Typical Forward Characteristics, Per Element

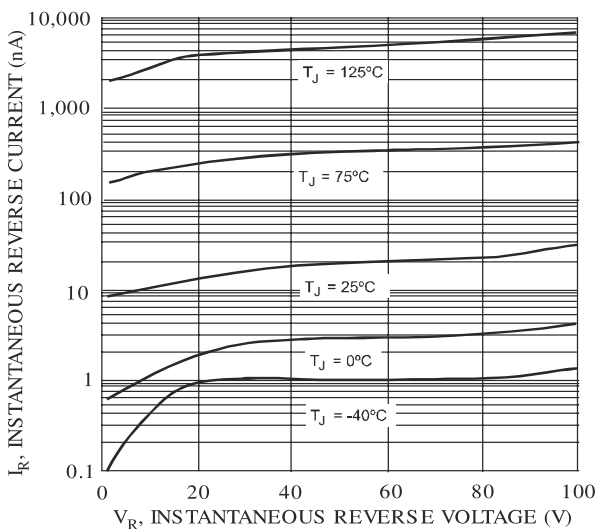


Fig. 3 Typical Reverse Characteristics, Per Element

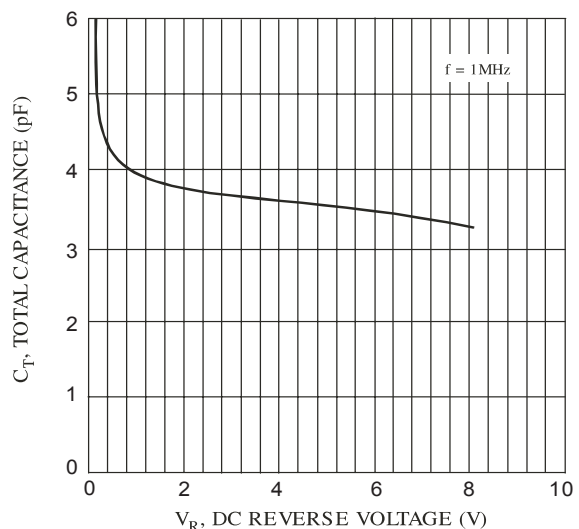
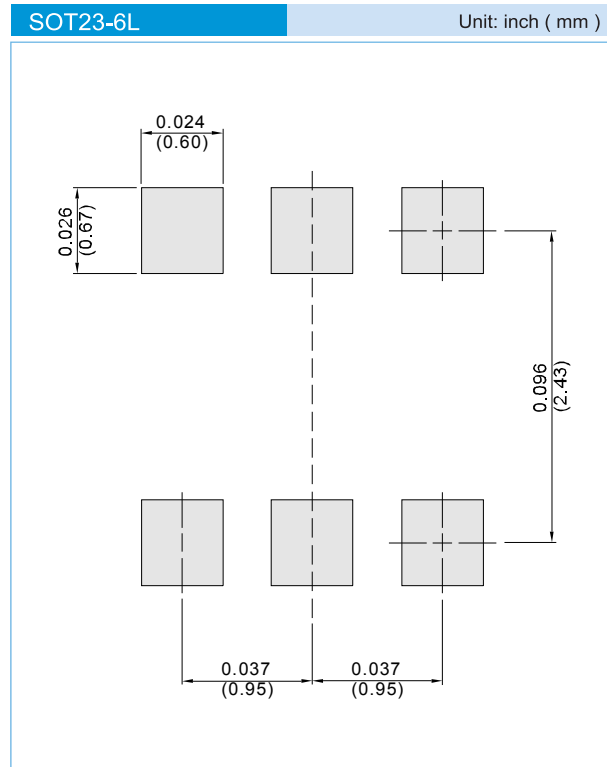


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

MMBD4448W6_R1_00001

MMBD4448W6_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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