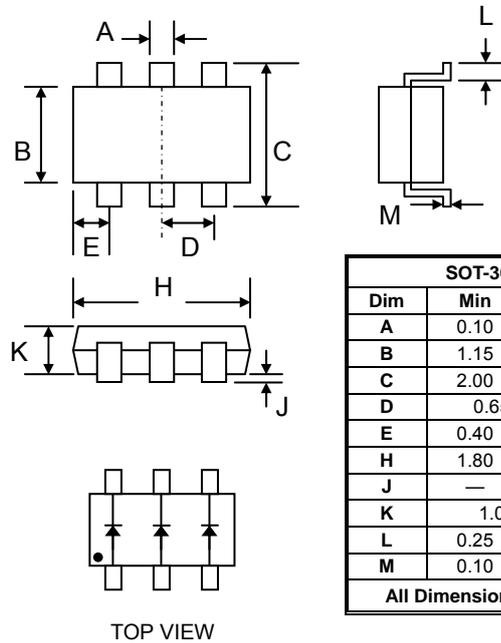


Features

- Isolated Triple Diode
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0

Mechanical Data

- Case: SOT-363, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.006 grams (approx.)
- Mounting Position: Any
- Marking: KA2
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.30
D	0.65 Typical	
E	0.40	0.50
H	1.80	2.20
J	—	0.10
K	1.0 Typical	
L	0.25	0.40
M	0.10	0.22
All Dimensions in mm		

Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
Repetitive Peak Forward Current	I_{FRM}	300	mA
Continuous Forward Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	2.0 1.0	A
	@ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$		
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P_D	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	R_{JA}	625	$^\circ\text{C}/\text{W}$

Note: 1. Mounted on FR-4 PC board with minimum recommended pad layout.

Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage @ $I_R = 1.0\mu\text{A}$ @ $I_R = 100\mu\text{A}$	$V_{(BR)}$	75 100			V
Forward Voltage Drop @ $I_F = 10\text{mA}$ @ $I_F = 100\text{mA}$	V_{FM}			1.0 1.2	V
Peak Reverse Leakage Current @ $V_R = 20\text{V}$ @ $V_R = 75\text{V}$	I_{RM}			25 5.0	nA μA
Diode Capacitance ($V_R = 0\text{V}$, $f = 1.0\text{MHz}$)	C_D			4.0	pF
Reverse Recovery Time ($I_F=10\text{mA}$, $V_R=6.0\text{V}$, $I_{RR}=1.0\text{mA}$, $R_L=100\Omega$)	t_{rr}			4.0	nS

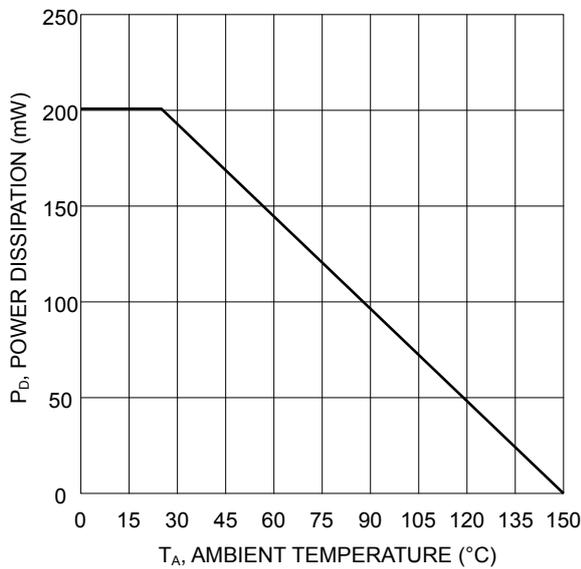


Fig. 1 Power Derating Curve

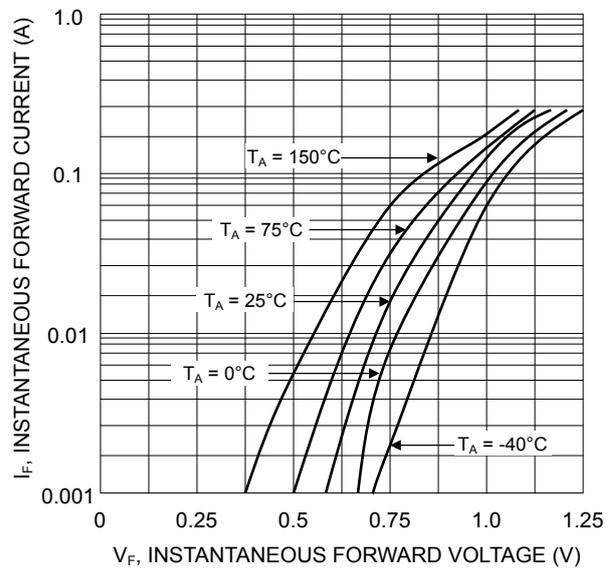


Fig. 2 Typical Forward Characteristics

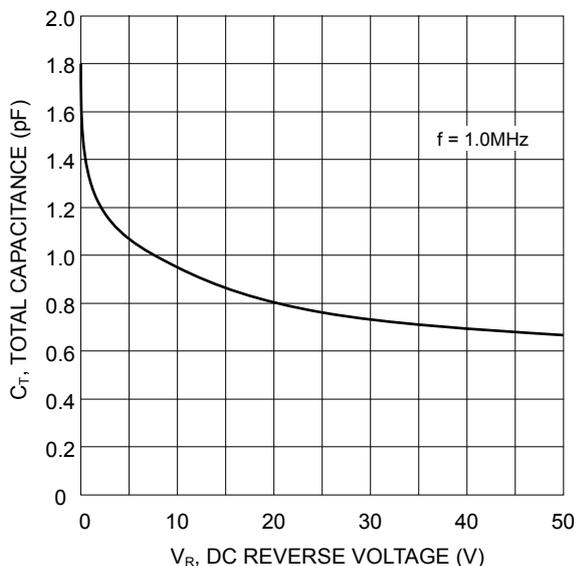


Fig. 3 Total Capacitance vs. Reverse Voltage

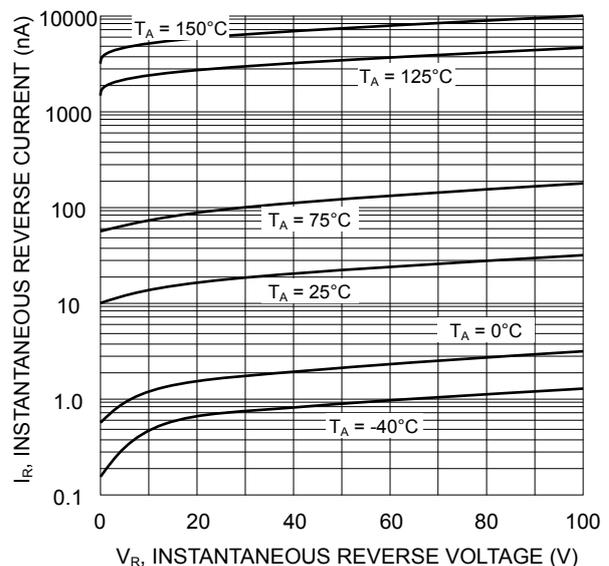
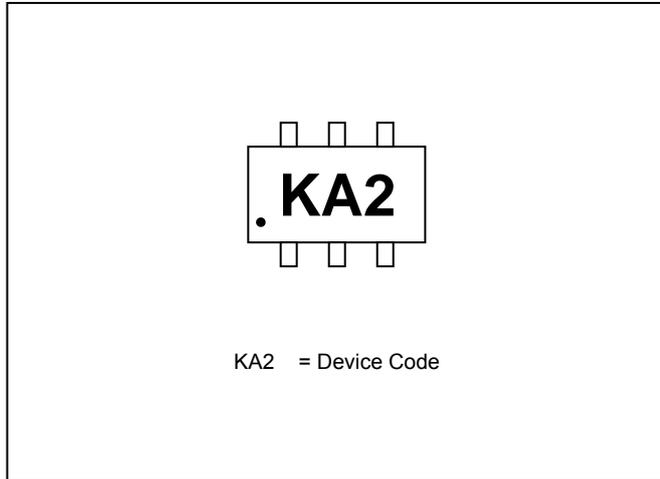
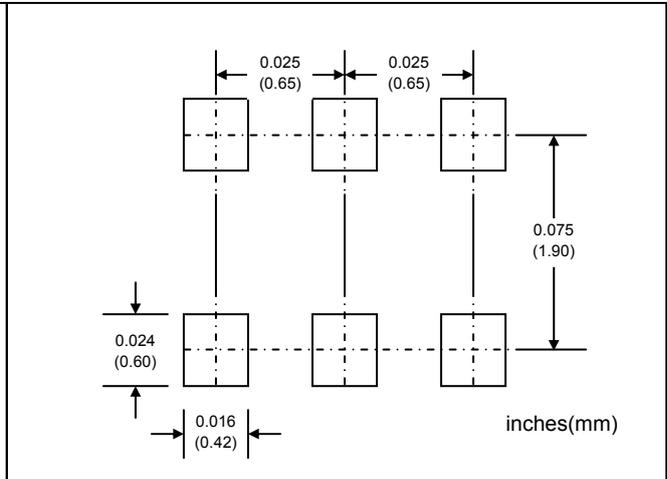


Fig. 4 Typical Reverse Characteristics

MARKING INFORMATION

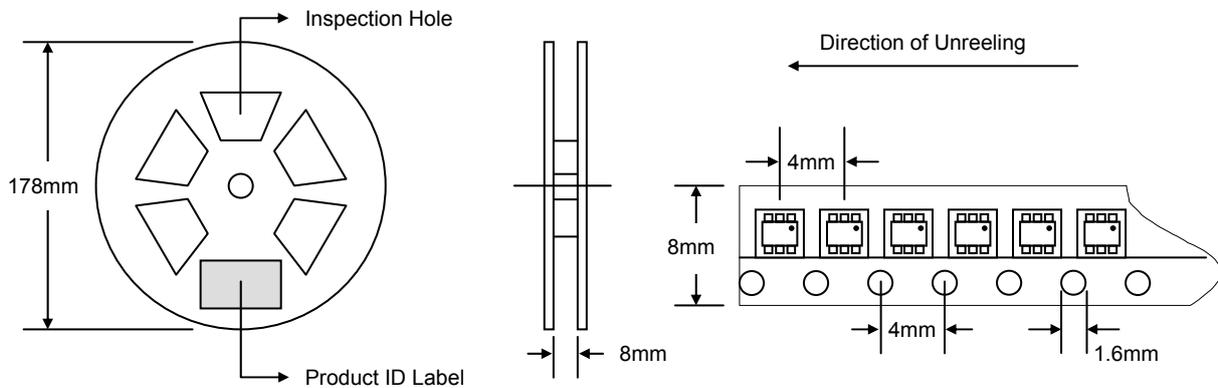


RECOMMENDED FOOTPRINT



PACKAGING INFORMATION

TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

Note: 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
MMBD4148TW-T1	SOT-363	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, MMBD4148TW-T1-LF.**

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