

Surface Mount Switching Multi-Chip Diode Array

(Pb) Lead(Pb)-Free

Features:

- * Fast Switching Speed
- * Ultra-Small Surface Mount Package
- * For General Purpose Switching Applications
- * High Conductance Power Dissipation

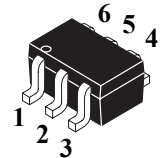
Mechanical Data:

- * Case : SOT-363
- * Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- * Moisture Sensitivity : Level 1 per J-STD-020C
- * Terminals : Solderable per MIL-STD-202, Method 208
- * Polarity : See Diagram
- * Weight : 0.006 grams(appro)

MULTI-CHIP DIODES

150m AMPERES

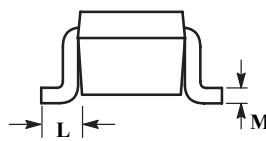
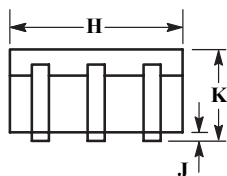
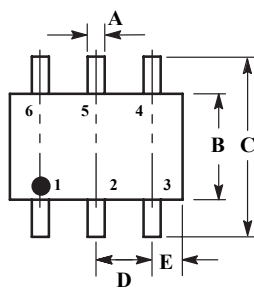
75 VOLTS



SOT-363

SOT-363 Outline Dimensions

Unit:mm



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 REF	
E	0.30	0.40
H	1.80	2.20
J	-	0.10
K	0.80	1.10
L	0.25	0.40
M	0.10	0.25

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

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current (Note 1)	I_{FM}	300	mA
Average Rectified Output Current (Note 1)	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$	I_{FSM}	2.0 1.0	A
Power Dissipation (Note 1)	P_D	200	mW
Thermal Resistant Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating Temperature Range	T_j	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Notes:1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch

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

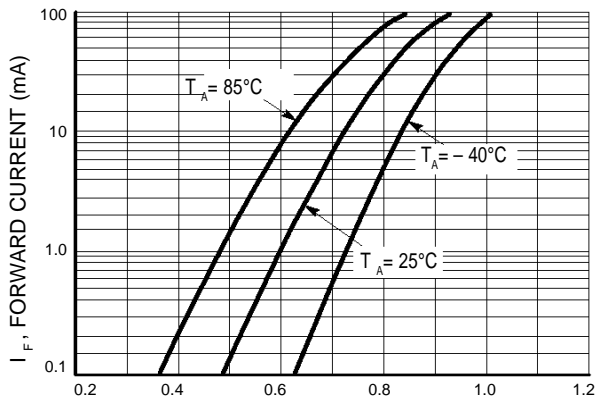
Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage (Note 2) $I_R = 100\mu\text{A}$	$V_{(BR)R}$	75	-	V
Forward Voltage (Note 2) $I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$	V_F	- - - -	0.715 0.855 1.0 1.25	V
Reverse Current (Note 2) $V_R = 75\text{V}$ $V_R = 75\text{V}, T_j = 150^\circ\text{C}$ $V_R = 25\text{V}, T_j = 150^\circ\text{C}$ $V_R = 20\text{V}$	I_R	-	1.0 50 30 25	μA μA μA nA
Total Capacitance $V_R = 0\text{V}, f = 1.0\text{MHz}$	C_T	-	2.0	pF
Reverse Recovery Time $I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	T_{rr}	-	4.0	ns

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

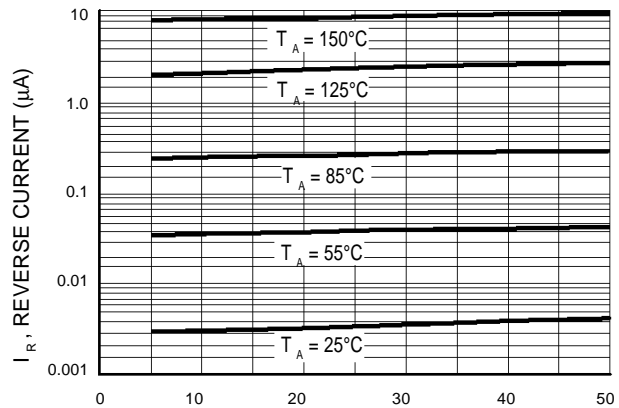
Device Marking

Item	Marking	Equivalent Circuit diagram
BAS16TDW MMBD4148TDW	KA2	

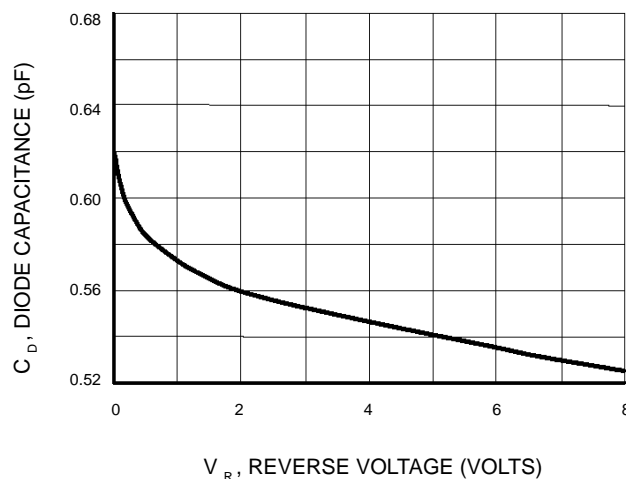
Typical Characteristics



V_F , FORWARD VOLTAGE (VOLTS)
Figure 2. Forward Voltage



V_R , REVERSE VOLTAGE (VOLTS)
Figure 3. Leakage Current



V_R , REVERSE VOLTAGE (VOLTS)
Figure 4. Capacitance