WEITRON

BAS16TDW
MMBD4148TDW

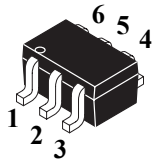
Surface Mount Switching Multi-Chip Diode Array

MULTI-CHIP DIODES
150m AMPERES
75 VOLTS

Lead(Pb)-Free

Features:

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



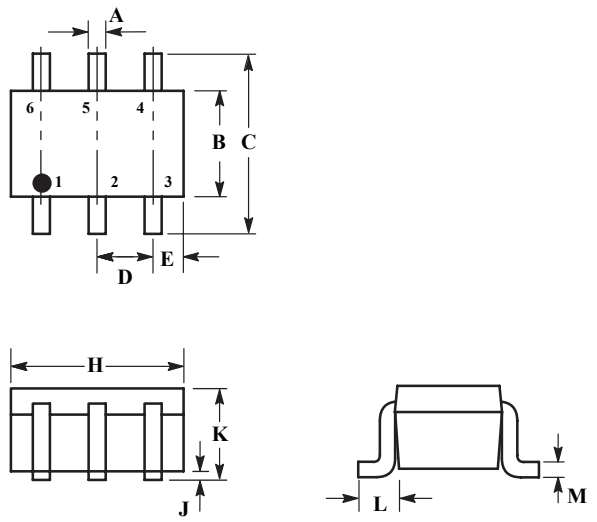
SOT-363

Mechanical Data:

* Case : SOT-363
* Case Material : Molded Plastic. UL Flammability Classification Ration 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)

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°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 = 1.0μs @ t = 1.0s	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	°C/W
Operating Temperature Range	T_j	+150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

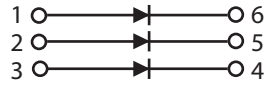
Notes:1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch

Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

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

Device Marking

Item	Marking	Eqivalent Circuit diagram
BAS16TDW MMBD4148TDW	KA2	

Typical Characteristics

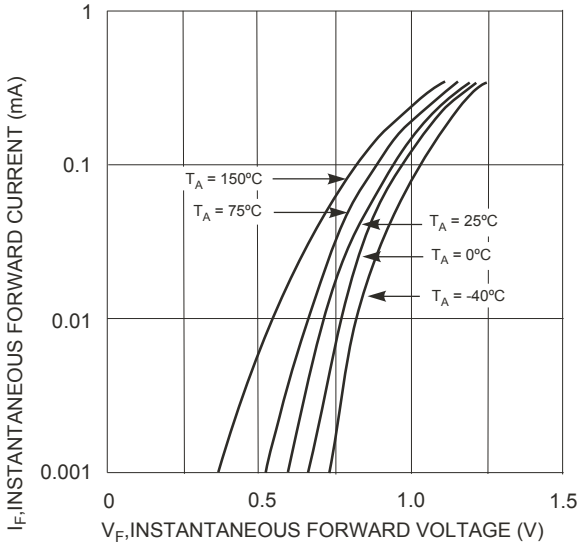


Fig.1 Typical Forward Characteristics

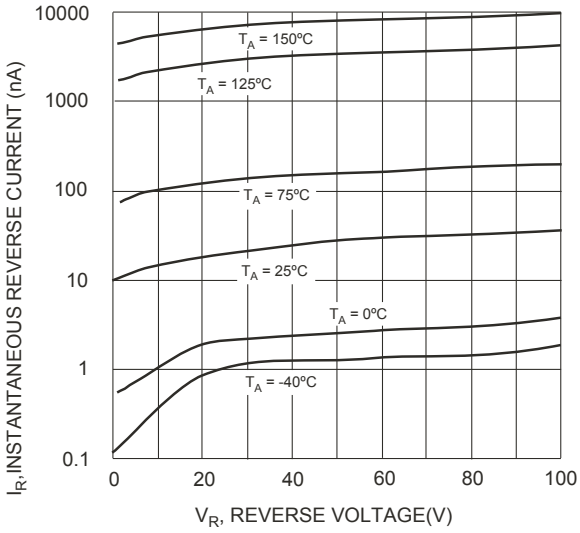


Fig.2 Typical Reverse Characteristics

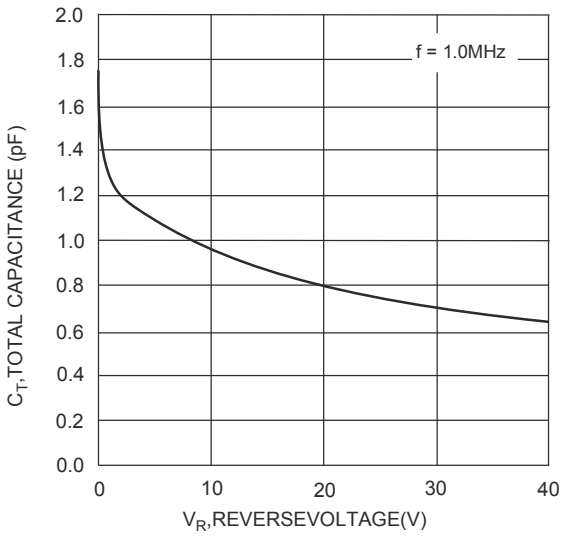


Fig.3 Typical Capacitancevs .Reverse Voltage

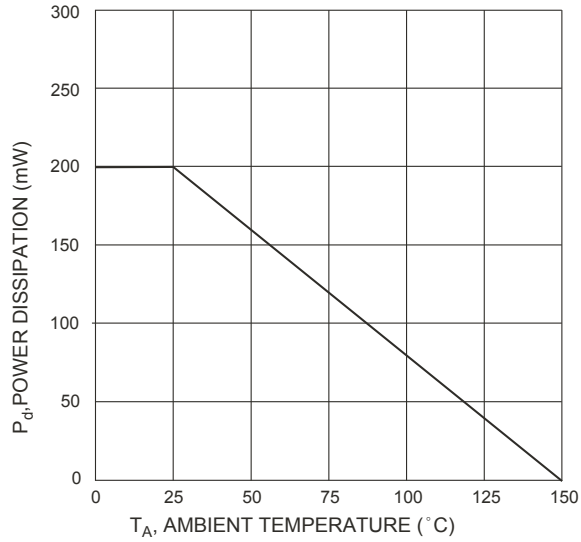


Fig.4 Power Derating Curve, Total Package