



BAS16TDW
MMBD4148TDW

Surface Mount Switching Multi-Chip Diode Array

(Pb) Lead(Pb)-Free

MULTI-CHIP DIODES

150m AMPERES

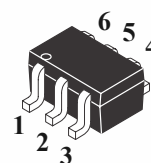
75 VOLTS

Features:

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

Mechanical Data:

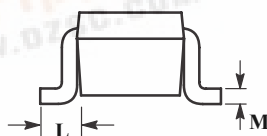
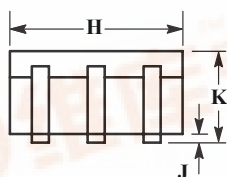
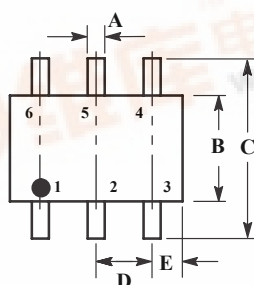
- * Case : SOT-363
- * Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- * Moisture Sensitivity : Level 1 per J-STD-020C
- * Terminals : Solderable per MIL-STD-202, Method 208
- * Polarity : See Diagram
- * Weight : 0.006 grams(appro)



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°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 _{θJA}	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, T _j = 150°C V _R = 25V, T _j = 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	Equivalent Circuit diagram
BAS16TDW MMBD4148TDW	KA2	

Typical Characteristics

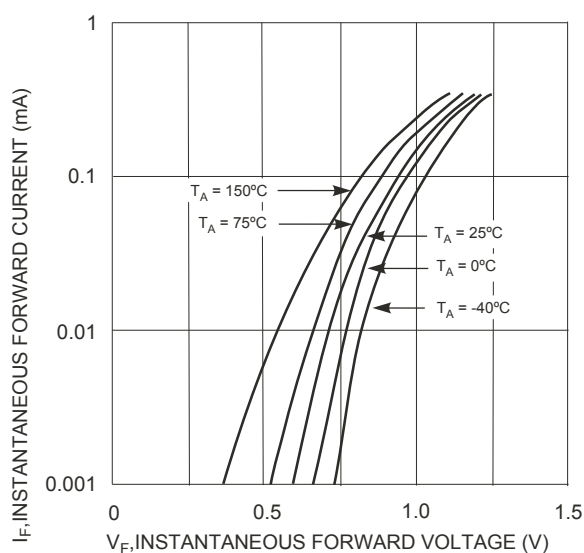


Fig.1 Typical Forward Characteristics

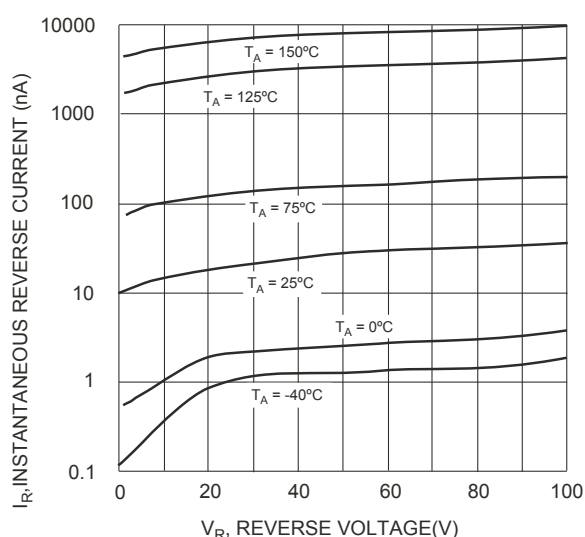


Fig.2 Typical Reverse Characteristics

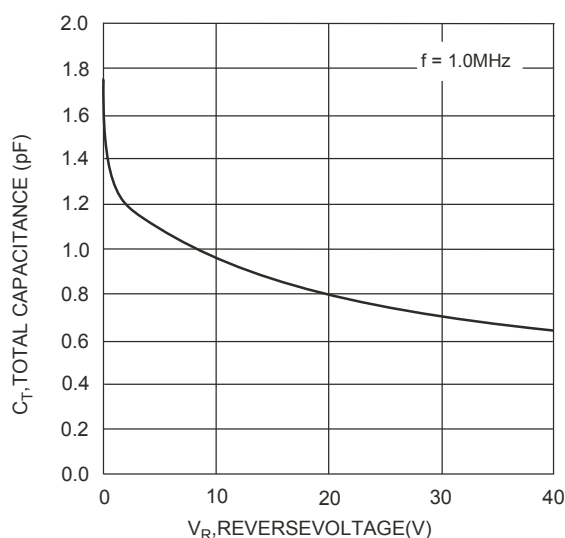


Fig.3 Typical Capacitance vs. Reverse Voltage

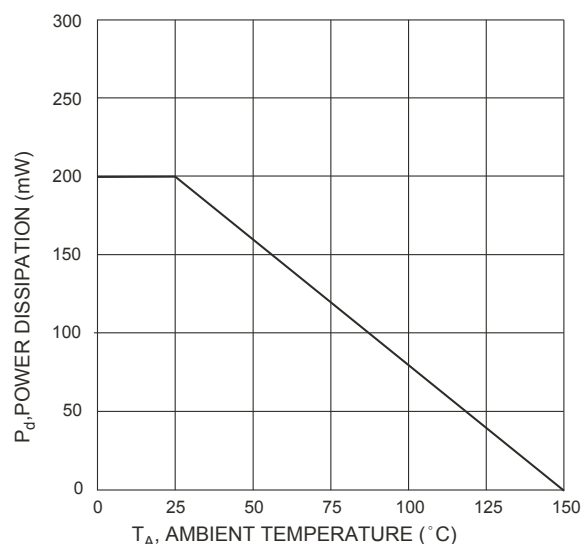


Fig.4 Power Derating Curve, Total Package