

BAS16TW/MMBD4148TW

SOT-363 Plastic-Encapsulate Switching Diode

FEATURES

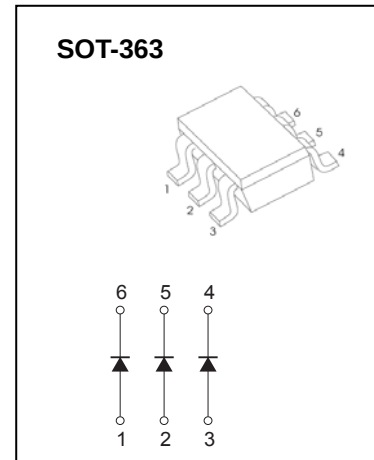
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

MARKING:

MMBD4148TW:KA2 BAS16TW:KA2



Solid dot = Pin1 indicate.
Solid dot = Green molding compound device.



Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

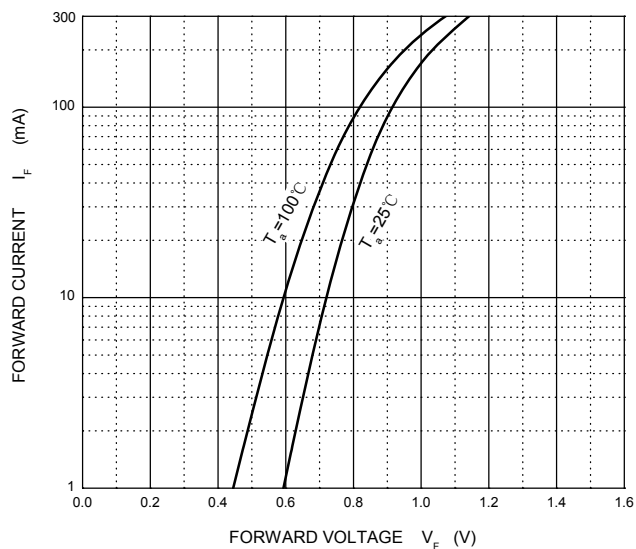
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C

Electrical Ratings @Ta=25°C

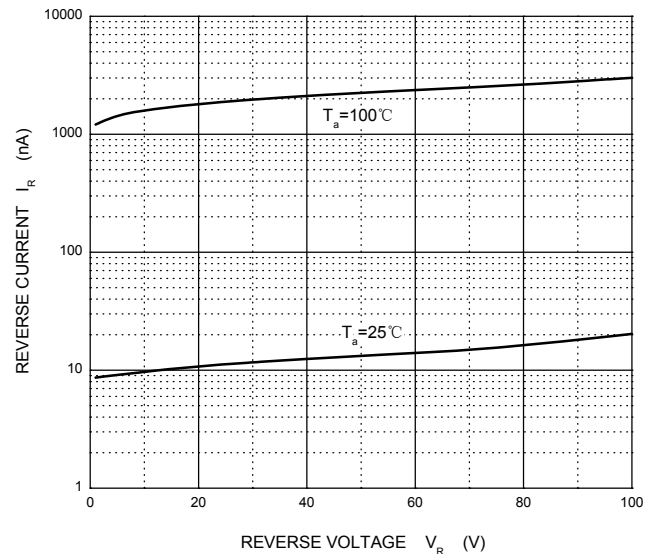
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	75			V	$I_R=10\mu A$
Forward voltage	V_{F1}			0.715	V	$I_F=1mA$
	V_{F2}			0.855	V	$I_F=10mA$
	V_{F3}			1.0	V	$I_F=50mA$
	V_{F4}			1.25	V	$I_F=150mA$
Reverse current	I_{R1}			1	μA	$V_R=75V$
	I_{R2}			25	nA	$V_R=20V$
Capacitance between terminals	C_T			2	pF	$V_R=0V, f=1MHz$
Reverse recovery time	t_{rr}			4	ns	$I_F=I_R=10mA$ $I_{rr}=0.1I_R, R_L=100\Omega$

Typical Characteristics

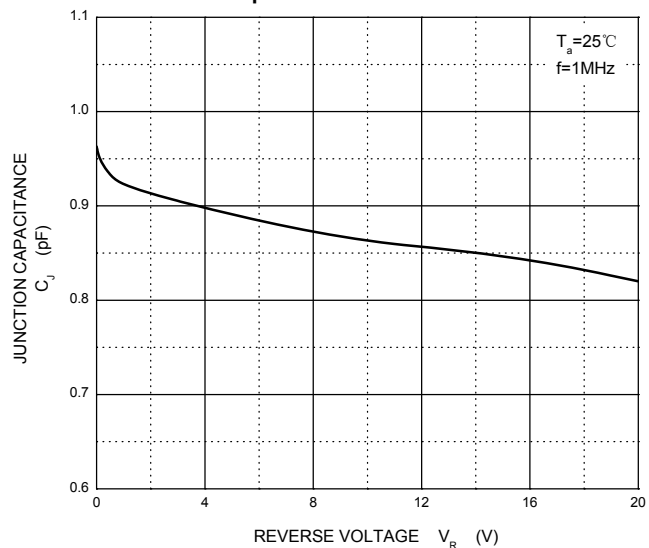
Forward Characteristics



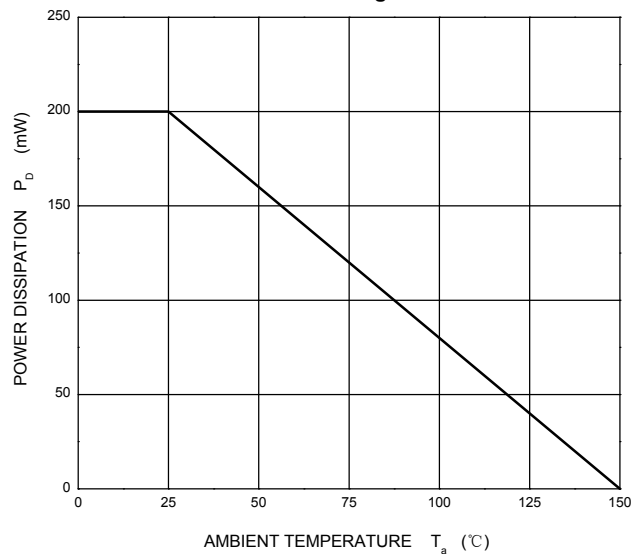
Reverse Characteristics



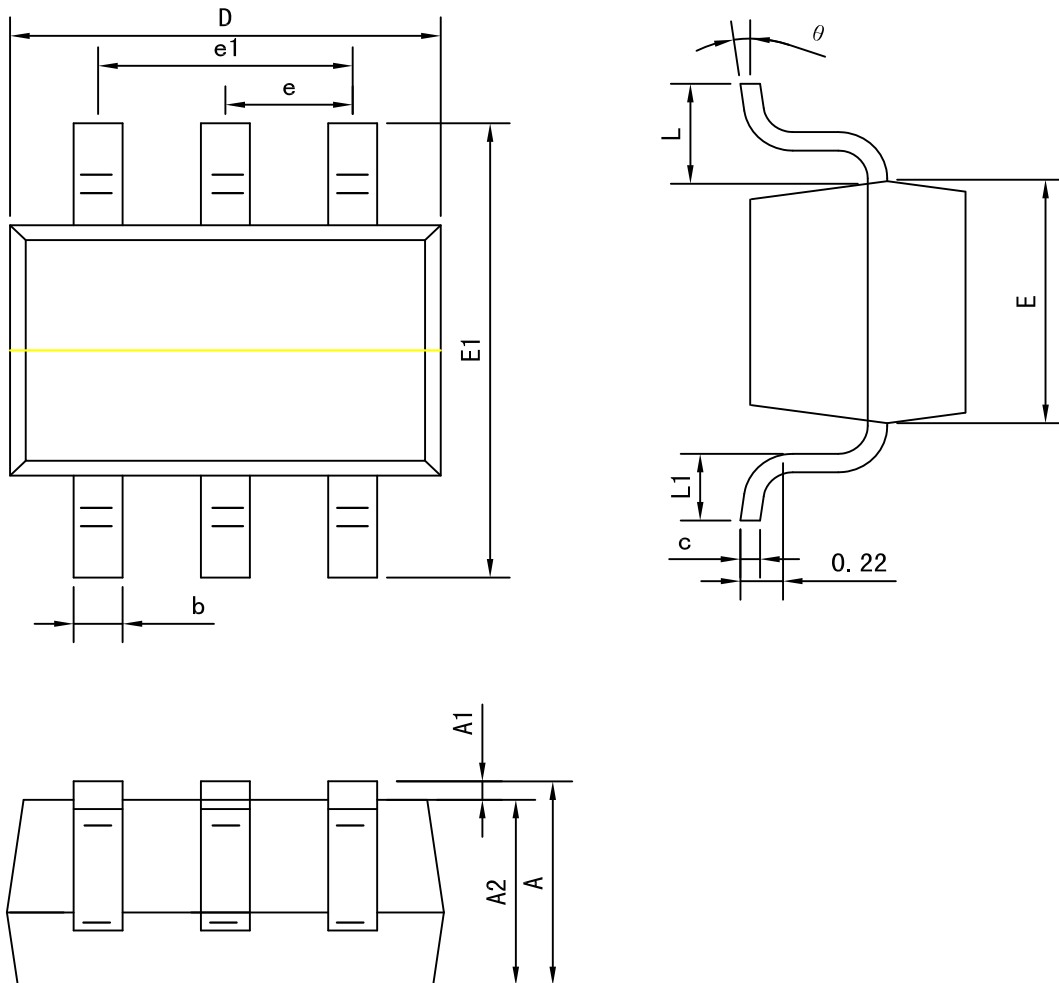
Capacitance Characteristics



Power Derating Curve



SOT-363 Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.100	0.350
c	0.080	0.250
D	1.800	2.200
E	1.150	1.350
E1	2.000	2.450
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
θ	0°	8°