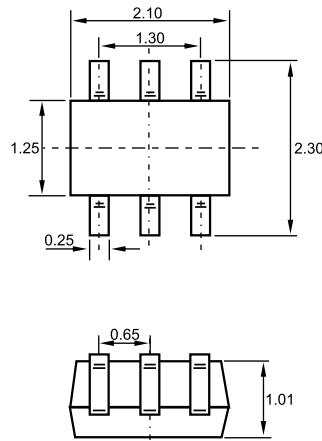

SOT-363


Dimensions in inches and (millimeters)

Features

- ✧ Fast switching speed.
- ✧ For general purpose switching application.
- ✧ Ultra-small surface mount package.
- ✧ High conductance.

Applications

- ✧ For general purpose switching application.

Ordering Information

Type No.	Marking	Package Code
MMBD4148TW	KA2	SOT-363
BAS16TW	KA2-	SOT-363

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Characteristic	Value	Unit
V _{RM}	Non-repetitive peak reverse Voltage	100	V
V _{RRM}	Peak repetitive reverse Voltage		
V _{RWM}	Working peak reverse voltage	75	V
V _R	DC reverse voltage		
I _{FM}	Forward continuous current	300	mA
I _O	Average rectified output current	150	mA
I _{FSM}	Non-Repetitive peak forward surge current @t=1.0μs @t=1.0s	2.0 1.0	A
P _D	Power Dissipation	200	mW
R _{θJA}	Thermal Resistance, Junction to Ambient	625	°C/W
T _j , T _{stg}	Junction and Storage Temperature	-65to+150	°C

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=1\mu\text{A}$	75	-	V
Forward voltage	V_F	$I_F=1.0\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	-	0.715 0.855 1.0 1.25	V
Total Capacitance	C_T	$V_{CB}=10\text{V}, f=1.0\text{MHz}, I_E=0$	-	2.0	pF
Reverse Recovery time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1*I_R, R_L=100\Omega$	-	4.0	ns

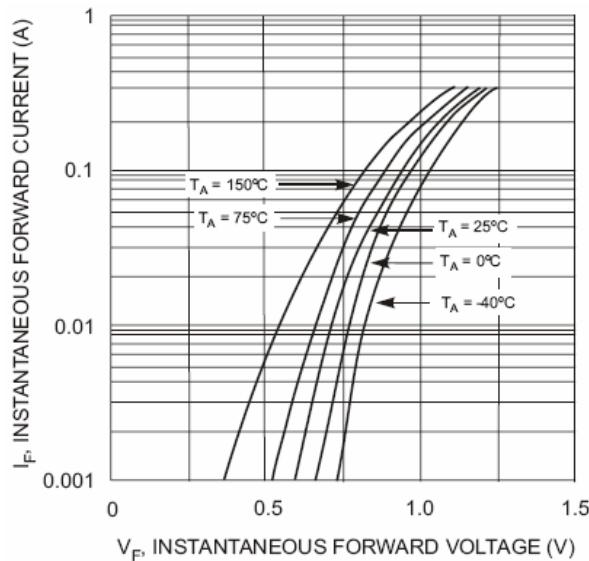
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified


Fig. 1 Forward Characteristics

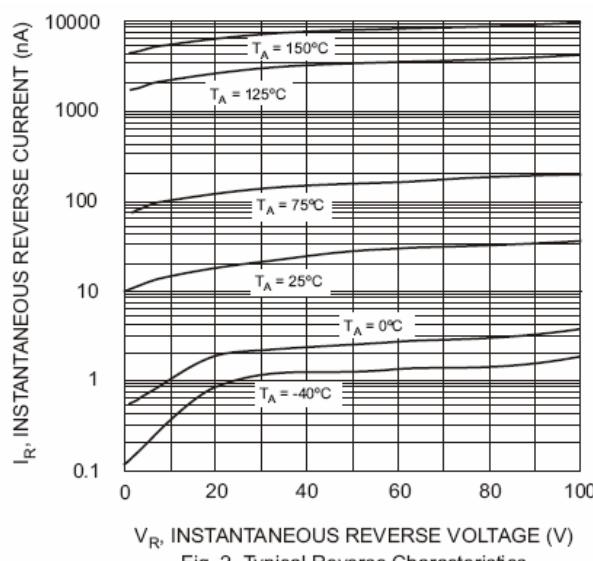


Fig. 2 Typical Reverse Characteristics

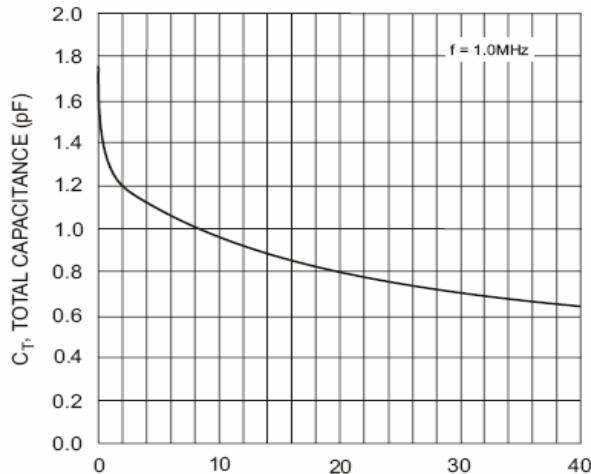


Fig. 3 Typical Capacitance vs. Reverse Voltage

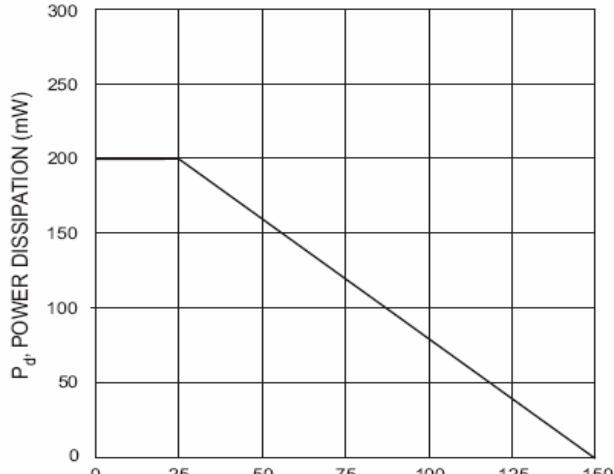


Fig. 4 Power Derating Curve