WEITRON

BAS70W/BAS70W-04
BAS70W-05/BAS70W-06

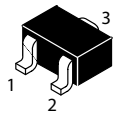
Surface Mount Schottky Barrier Diodes

Lead(Pb)-Free

SMALL SIGNAL
SCHOTTKY DIODES
70m AMPERES
70 VOLTS

Features:

*Extremely Fast Switching Speed
*Low Forward Voltage
*Very Small Conduction Losses
*Schottky Barrier Diodes Encapsulated in a SOT-323 Package



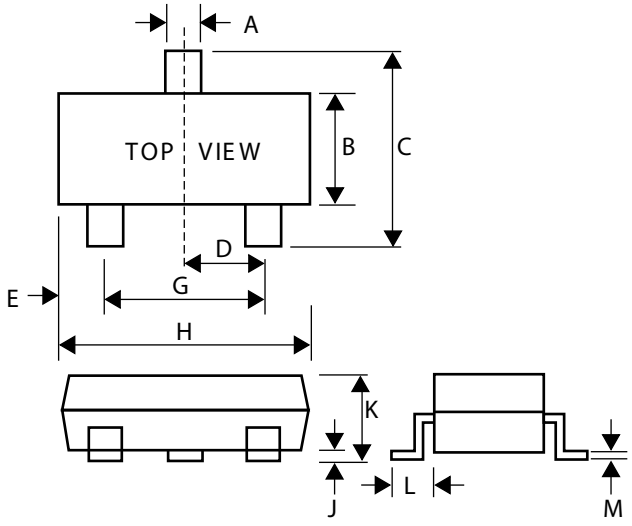
SOT-323(SC-70)

Description:

These schottky barrier diodes are designed for high speed switching applications circuit protection, and voltage clamping, Extremely low forward voltage reduces conduction loss, Miniature surface mount package is excellent for hand held and portable applications where space is limited.

SOT-323 Outline Dimensions

Unit:mm



SOT-323		
Dim	**Min**	**Max**
A	0.30	0.40
B	1.15	1.35
C	2.00	2.40
D	-	0.65
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.00	0.10
K	0.80	1.00
L	0.42	0.53
M	0.10	0.25

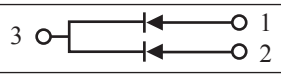
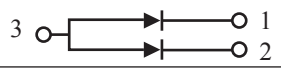
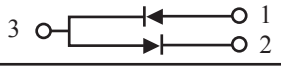
Maximum Ratings (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RRM} V_R	70	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	V
Forward Continuous Current (1)	V_R	70	mA
Non-Repetitive Peak Forward Surge Current @ tp < 1.0s	I_{FSM}	100	mA
Power Dissipation (1)	P_d	200	mA
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	KM
Operating Junction Temperure Range	Tj	-55 to + 150	°C
Storage Temperature Range	T_{STG}	-65 to + 150	°C

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage (I_R=10uA)	$V_{(BR)R}$	70		Volts
Forward Voltage I_F=1.0mA I_F=15mA	V_F		0.41 1.00	Volts
Total Capacitance (V_R=0V, f=1.0MHz)	C_T		2	PF
Reverse Leakage V_R=50V	I_R		0.1	uAdc
Reverse Recover Time I_F=I_R =10mA, $I_{R(Rec)}$=1.0mA	Trr		5.0	nS

Device Marking

Item	Marking	Eqivalent Circuit diagram
BAS70W	K73	
BAS70W-05	K75	
BAS70W-06	K76	
BAS70W-04	K74	

Note: 1. Valid provided that terminals are kept at ambient temperature.
2. Test period < 300us.

Electrical Characteristic curves(Ta=25°C)

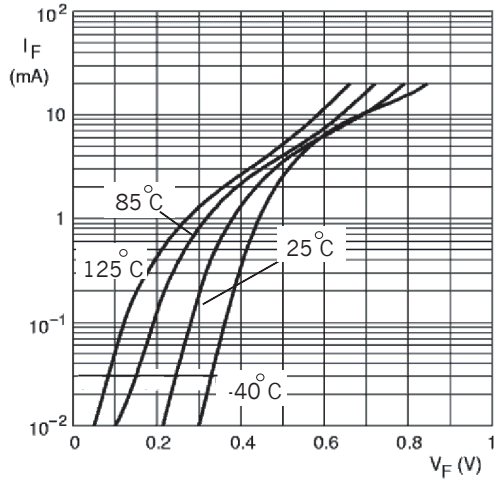


FIG1 Forward currnet as function of forward voltage; typical values.

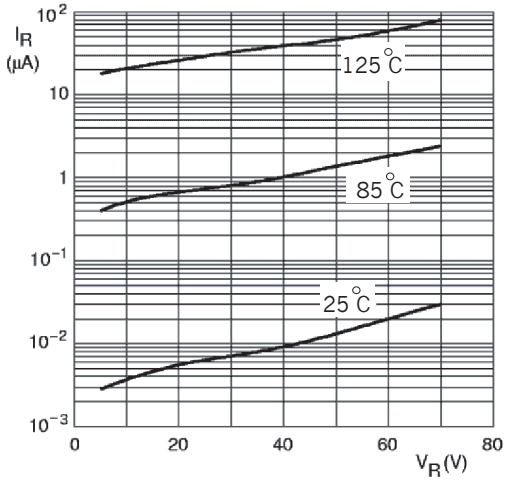


FIG2 Rèverse current as a function of reverse voltage; typical values.

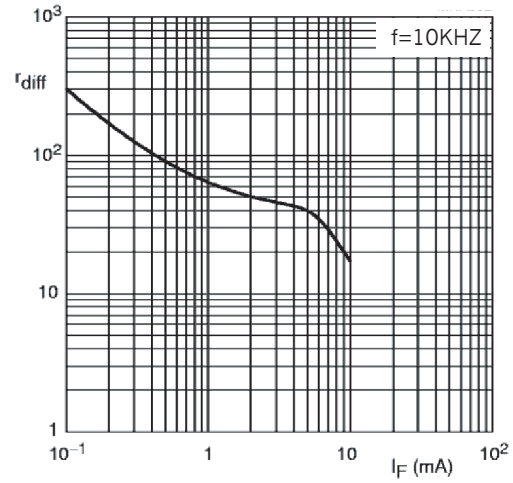


FIG3 Differential forward resistance as a function of forward current; typical values.

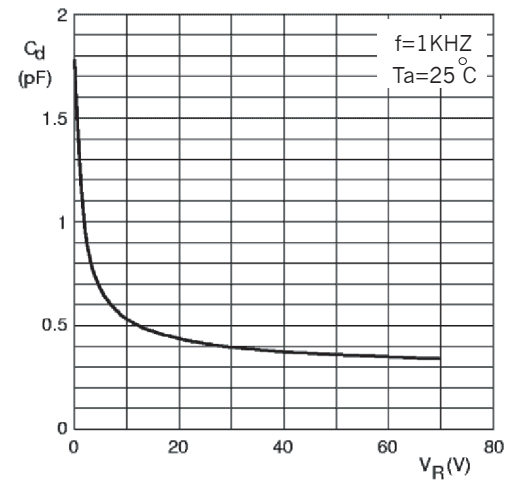


FIG4 Diode capacitance as a function of reverse voltage; typical values.