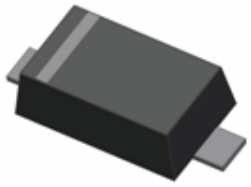
TAK CHEONG®

PRELIMINARY

400mW SOD-123 SURFACE MOUNT
Very Small Outline Flat Lead Plastic Package Schottky Barrier Diode

Green Product



SOD-123 Flat Lead



ELECTRICAL SYMBOL

Absolute Maximum Ratings T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	400	mW
T_{STG}	Storage Temperature Range	-65 to +125	°C
T_J	Operating Junction Temperature	+125	°C
V_{RRM}	Repetitive Peak Reverse Voltage	30	V
V_R	Maximum DC Blocking Voltage	30	V
$I_{F(AV)}$	Average Forward Rectified Current	200	mA
I_{FSM}	Peak Forward Surge Current	4	A

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

- Low Forward Voltage Drop
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODES:

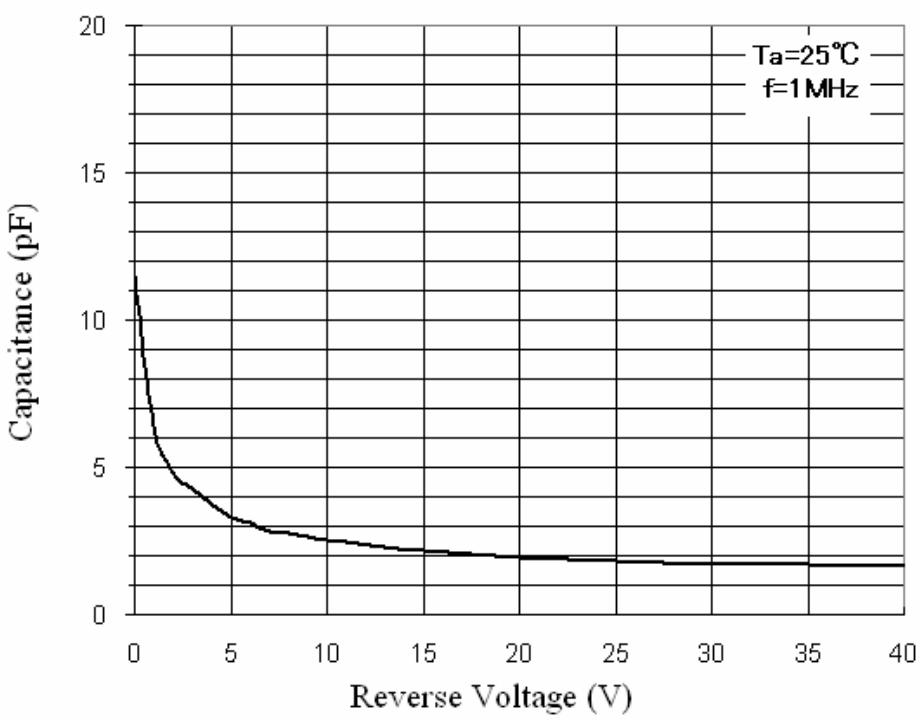
Device Type	Device Marking
BAT54W	C3

Electrical Characteristics T_A = 25°C unless otherwise noted

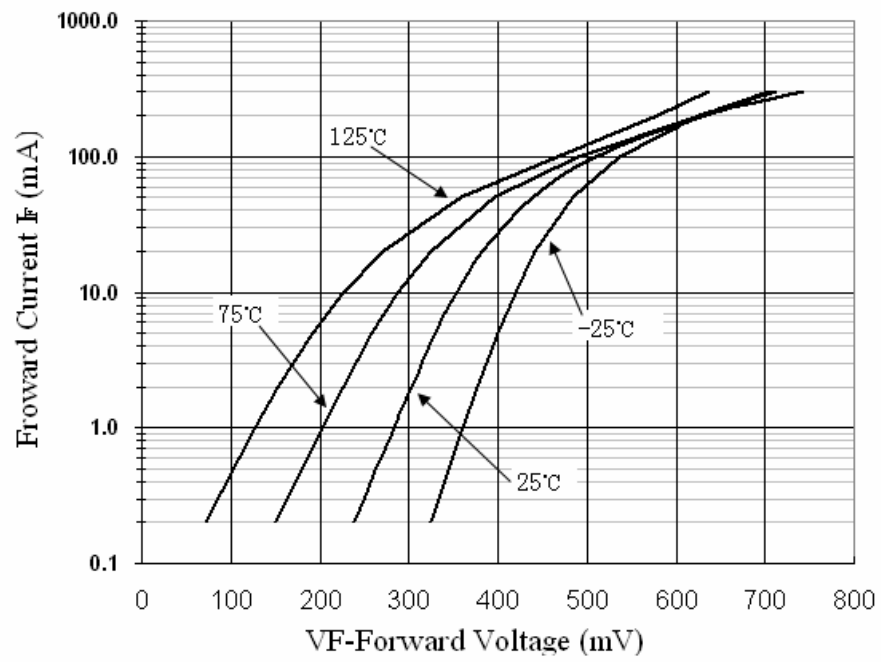
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	I_R=10μA	30		Volts
I_R	Reverse Leakage Current	V_R=25V		2	uA
V_F	Forward Voltage	I_F=0.1mA		0.24	
		I_F=1mA		0.32	
		I_F=10mA		0.40	Volts
		I_F=30mA		0.50	
		I_F=100mA		0.80	
T_{RR}	Reverse Recovery Time	I_F=I_R=10mA			
		R_L=100Ω		5	nS
		I_{RR}=1mA			
C	Capacitance	V_R=1V, f=1M_{HZ}		10	pF

Typical Performance Characteristics

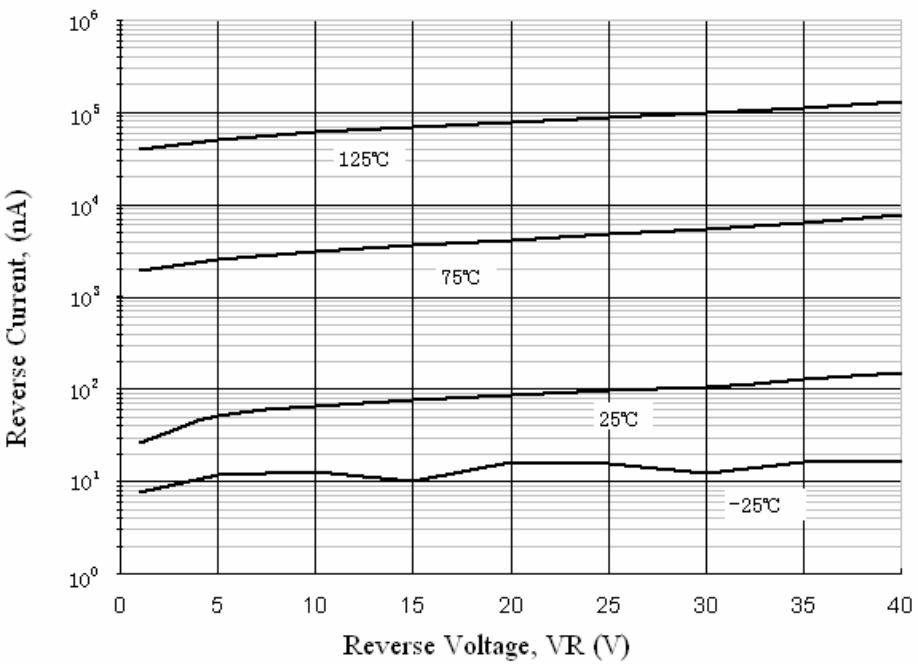
Total Capacitance



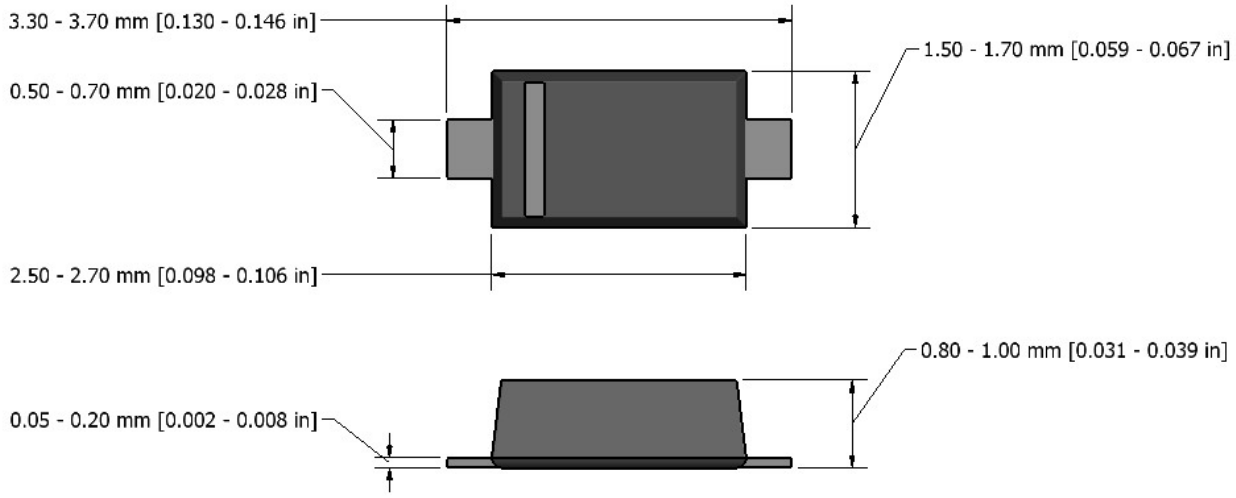
Forward Voltage vs Ambient Temperature



Reverse Current vs Reverse VoltageReverse



SOD-123 Package Outline



NOTE: The above package outline is similar to JEITA SC-90.

This datasheet presents technical data of Tak Cheong's Schottky Barrier Diodes. Complete specifications for the individual devices are provided in the form of datasheets. A comprehensive Selector Guide is included to simplify the task of choosing the best set of components required for a specific application. For additional information, please visit our website http://www.takcheong.com.

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