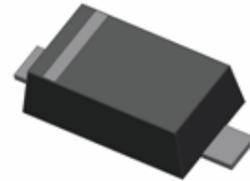
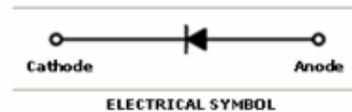


400mW SOD-123 SURFACE MOUNT
Small Outline Flat Lead Plastic Package
Fast Switching Schottky Barrier Diode

Green Product



SOD-123 Flat Lead



Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	400	mW
T_{STG}	Storage Temperature Range	-65 to +125	$^\circ\text{C}$
T_J	Operating Junction Temperature	+125	$^\circ\text{C}$
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:

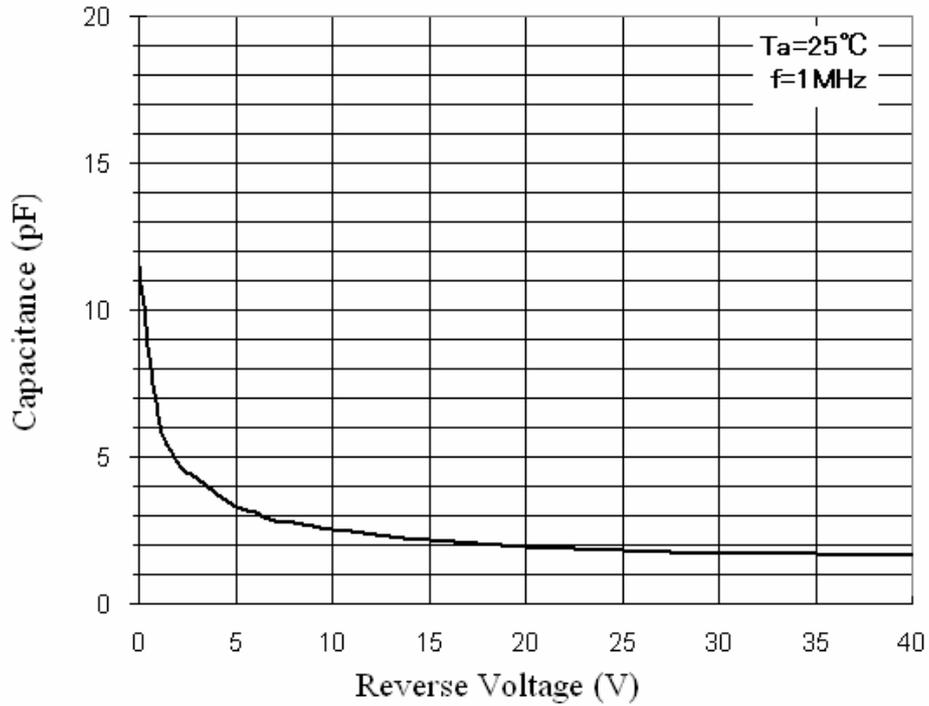
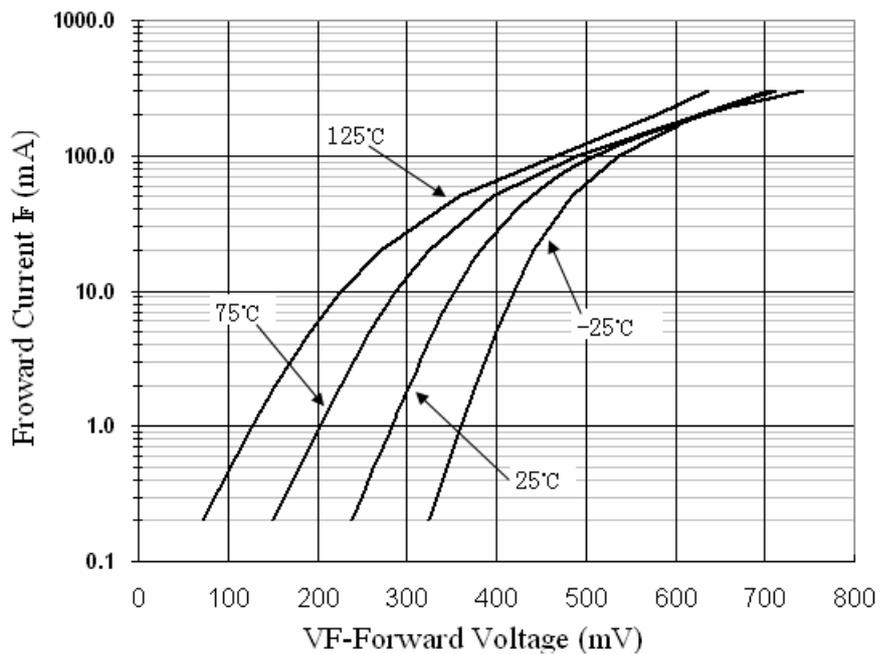
- Low Forward Voltage Drop
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODE:

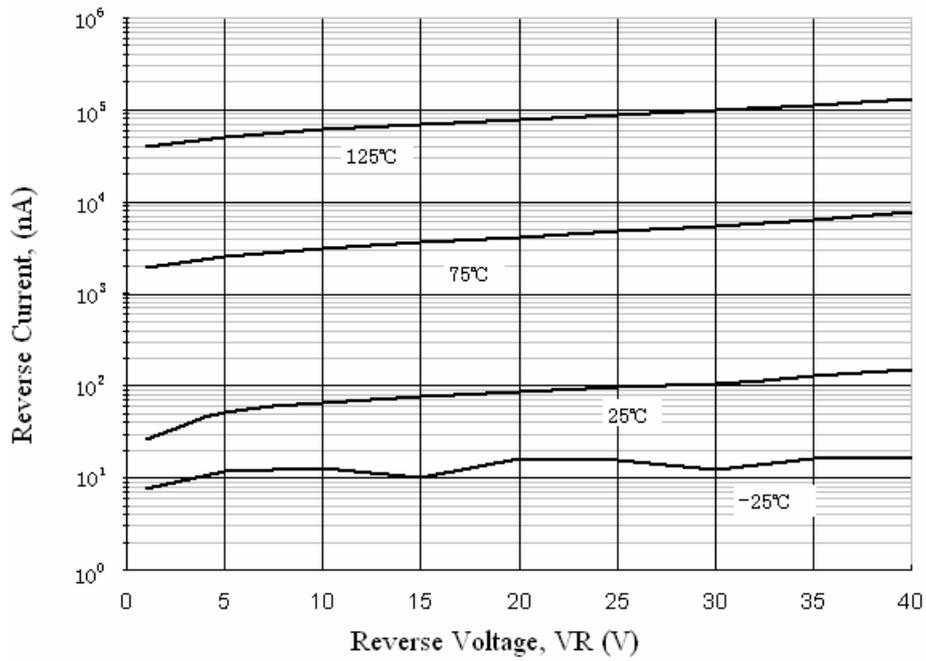
Device Type	Device Marking
BAT42W	C1
BAT43W	C2

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

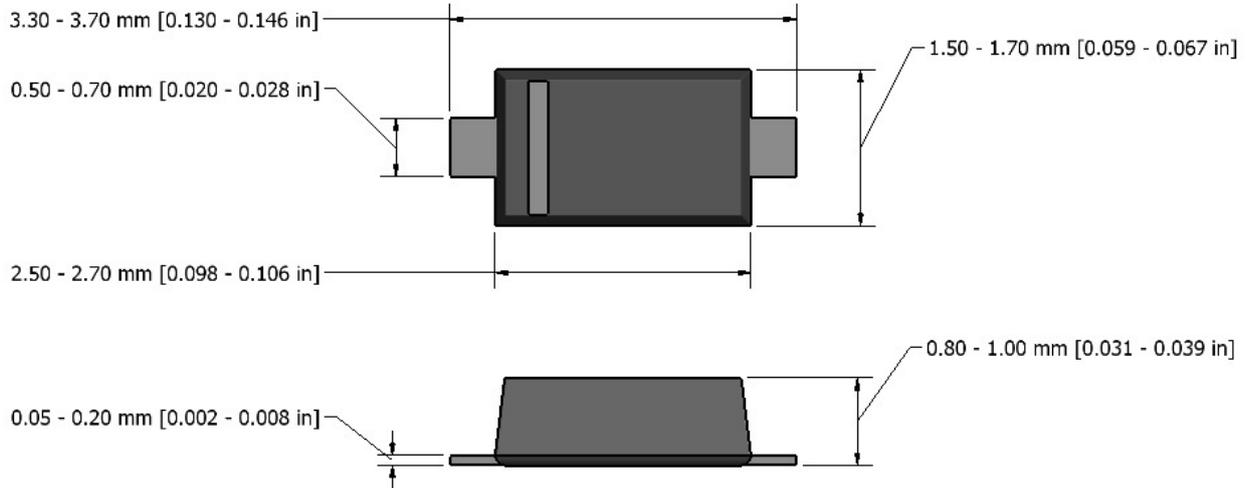
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R=100\mu\text{A}$	30		Volts
I_R	Reverse Leakage Current	$V_R=25\text{V}$		500	nA
V_F	Forward Voltage	BAT42W $I_F=10\text{mA}$	0.26	0.40	Volts
		$I_F=50\text{mA}$		0.65	
		BAT43W $I_F=2\text{mA}$		0.33	
		$I_F=15\text{mA}$		0.45	
		BAT42W, BAT43W $I_F=200\text{mA}$		1.0	
T_{RR}	Reverse Recovery Time	$I_F=I_R=10\text{mA}$ $R_L=100\Omega$ $I_{RR}=1\text{mA}$	5 (Typical)		nS
C	Capacitance	$V_R=1\text{V}, f=1\text{MHz}$	7 (Typical)		pF

Typical Performance Characteristics
Total Capacitance

Forward Voltage vs Ambient Temperature


Reverse Current vs Reverse Voltage



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 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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