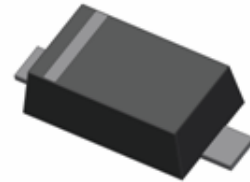
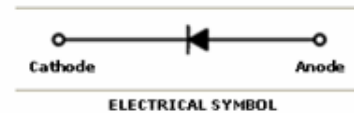


**400mW SOD-123 SURFACE MOUNT**  
**Small Outline Flat Lead Plastic Package**  
**Fast Switching Schottky Barrier Diode**

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:**

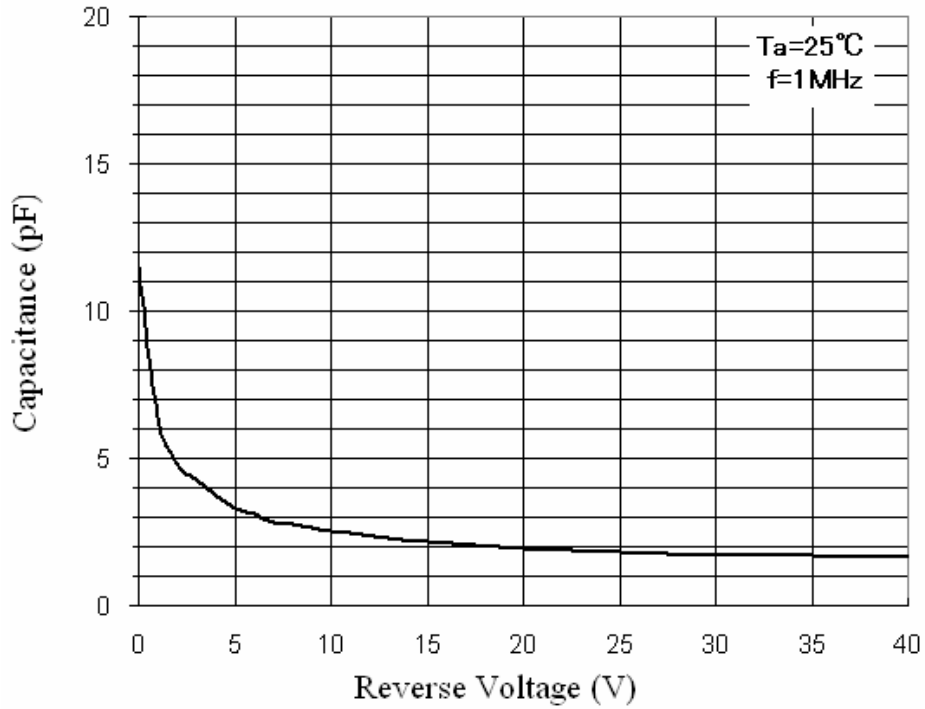
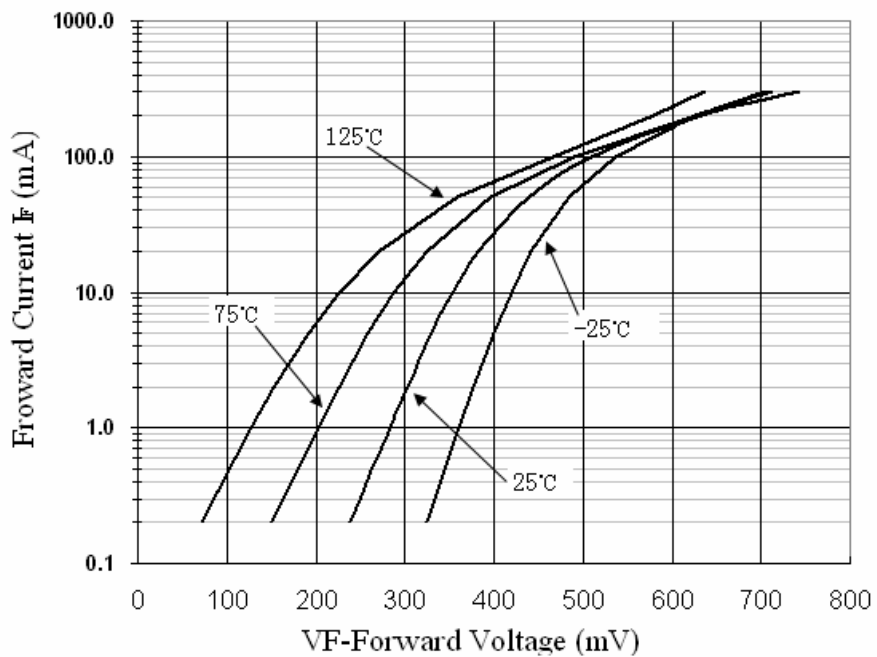
- Low Forward Voltage Drop
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

**DEVICE MARKING CODE:**

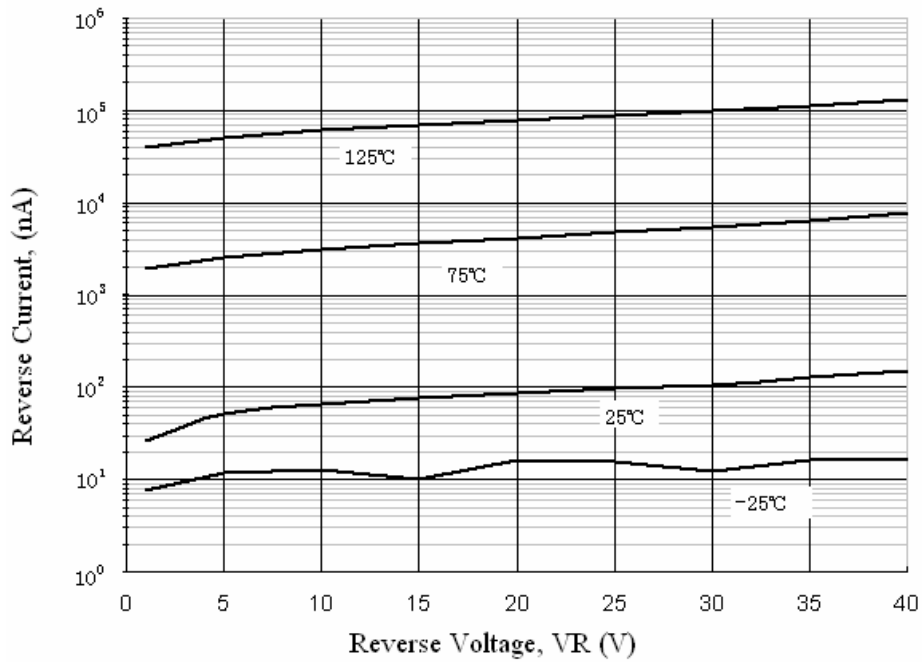
Device Type	Device Marking
BAT42W	C1
BAT43W	C2

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

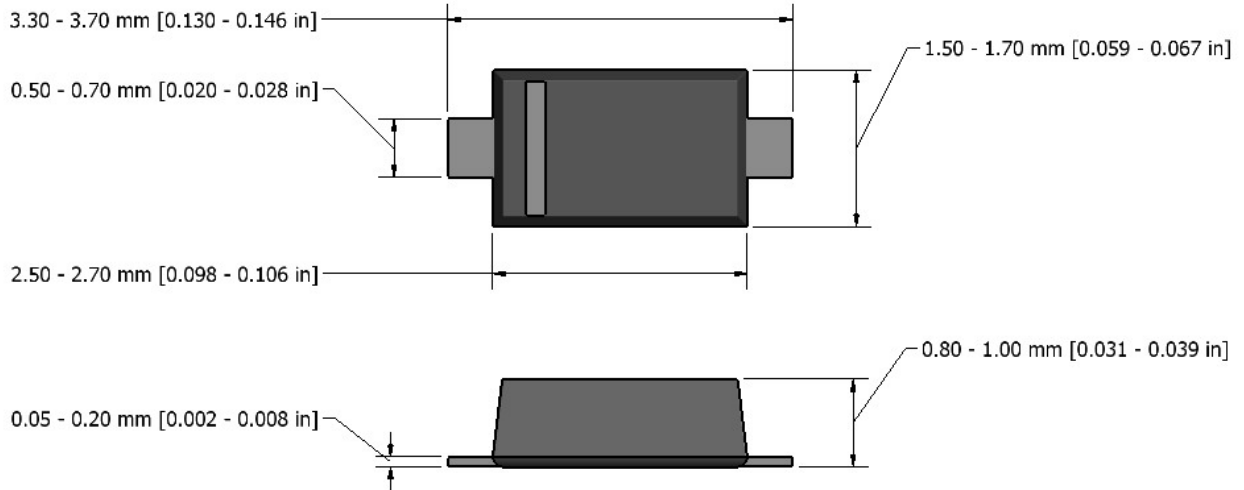
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
$B_V$	Breakdown Voltage	$I_R=100\mu\text{A}$	30		Volts
$I_R$	Reverse Leakage Current	$V_R=25\text{V}$		500	nA
$V_F$	Forward Voltage	BAT42W $I_F=10\text{mA}$	0.26	0.40	Volts
		$I_F=50\text{mA}$		0.65	
		BAT43W $I_F=2\text{mA}$		0.33	
		$I_F=15\text{mA}$		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>.

Although information in this datasheet has been carefully checked, no responsibility for the inaccuracies can be assumed by Tak Cheong. Please consult your nearest Tak Cheong's sales office for further assistance.

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