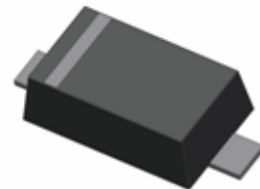


200mW SOD-523 SURFACE MOUNT

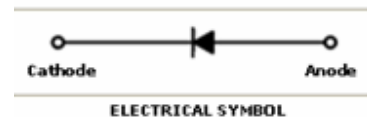
Very Small Outline Flat Lead Plastic Package

Schottky Barrier Diode

Green Product



SOD-523 Flat Lead



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

Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	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-523 Small Outline Plastic Package
- Extremely Small SOD-523 Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODES:

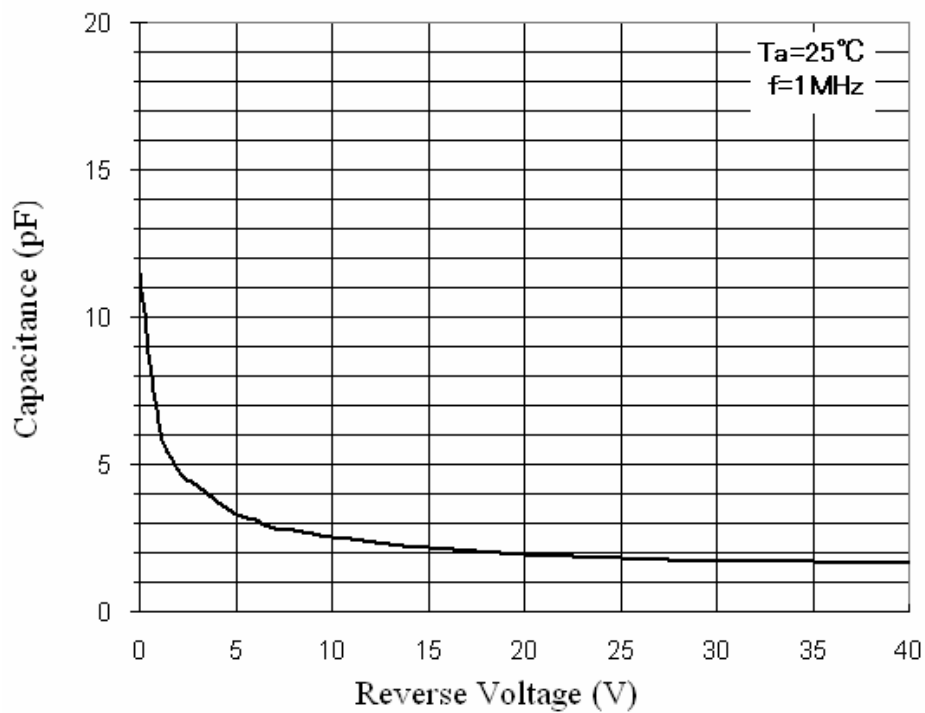
Device Type	Device Marking
BAT42XV2	6B
BAT43XV2	7B

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

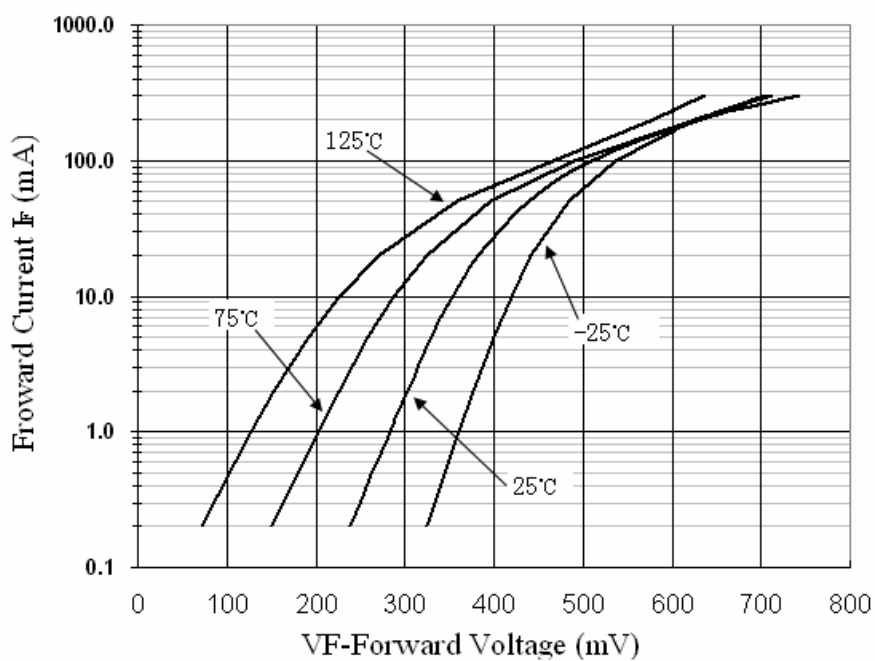
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R=100\mu\text{A}$	30		Volts
I_R	Reverse Leakage Current	$V_R=25\text{V}$		500	nA
V_F	Forward Voltage	TCBAT42XV2 $I_F=10\text{mA}$	0.26	0.40	Volts
		$I_F=50\text{mA}$		0.65	
		TCBAT43XV2 $I_F=2\text{mA}$		0.33	
		$I_F=15\text{mA}$		0.45	
		TCBAT42XV2, TCBAT43XV2 $I_F=200\text{mA}$		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

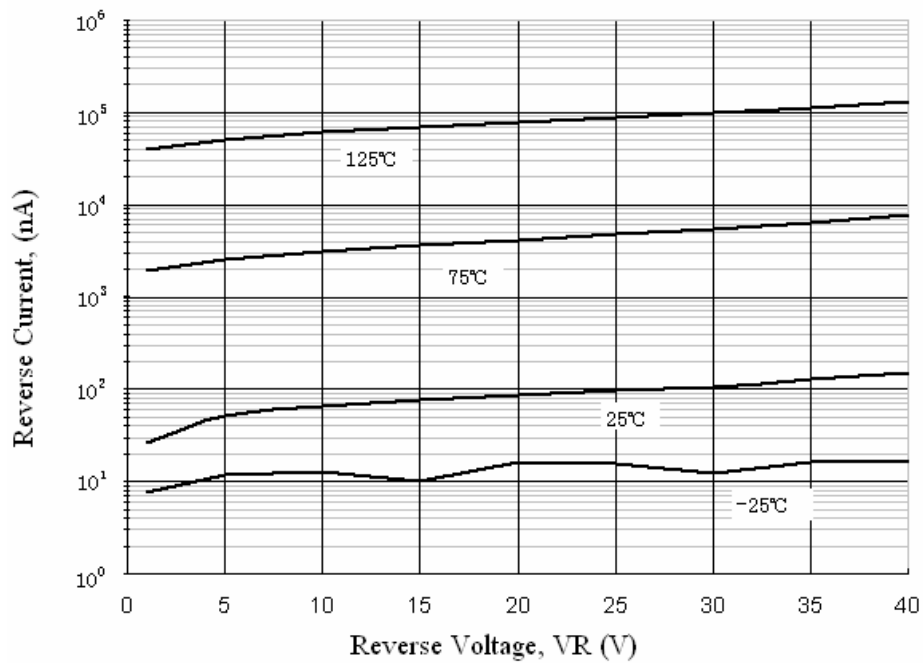
Total Capacitance

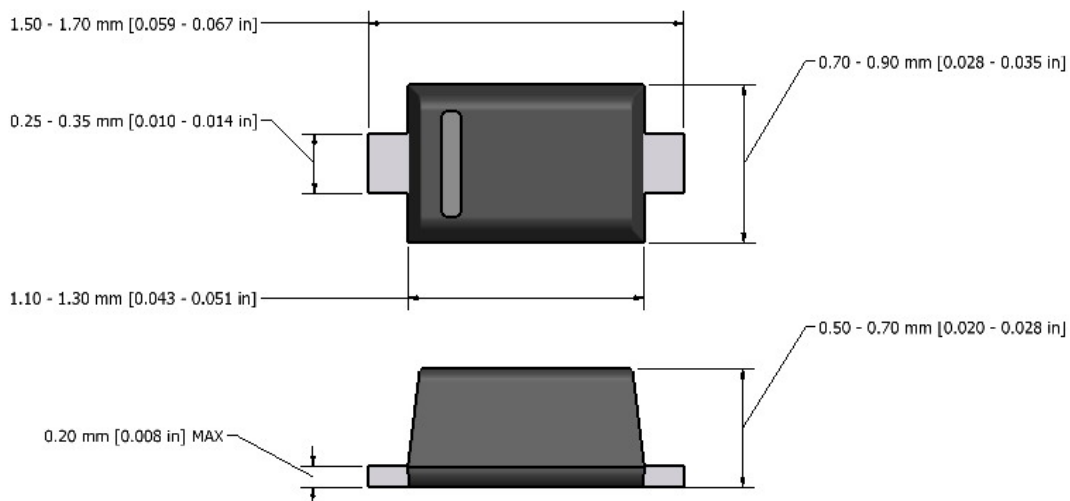


Forward Voltage vs Ambient Temperature



Reverse Current vs Reverse Voltage



Flat Lead SOD-523 Package Outline


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>.

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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