

DB0520W-DB0540W

Schottky Barrier Diode

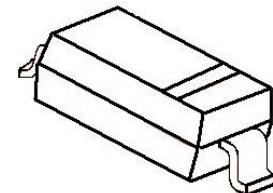
General description

Flat Lead Plastic Package Schottky Barrier Diode

FEATURES

- For use in low voltage, high frequency inverters
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Epoxy UL : 94V-0
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

SOD-123



DEVICE MARKING CODE:

Device Type	Device Marking
DB0520W	SD
DB0530W	SE
DB0540W	SF

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

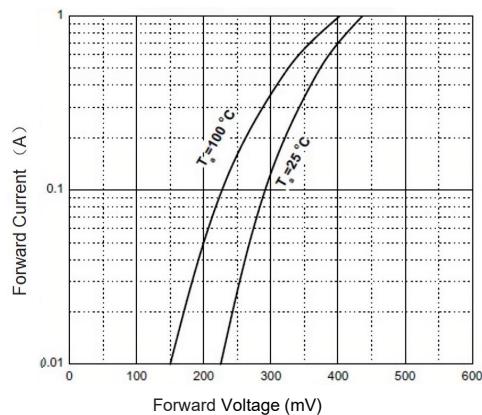
Parameters	Symbol	DB0520W	DB0530W	DB0540W	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward rectified current	I_{FM}		0.5		A
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}		5.5		A
Typical thermal resistance	$R_{\theta JA}$		200		$^\circ\text{C}/\text{W}$
Power Dissipation	PD		500		mW
Storage temperature range	T_{STG}		-50-+150		$^\circ\text{C}$
Voltage rate of change	Dv/dt		1000		V/uS

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

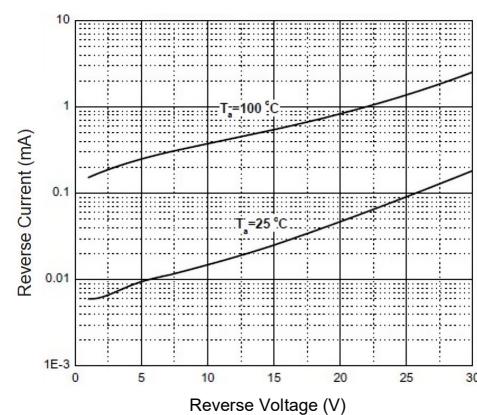
Parameters	Symbol	Test conditions	DB0520W	DB0530W	DB0540W	Unit
Maximum forward voltage	V_F	$I_F = 0.1\text{A}$	0.330	0.375		V
		$I_F = 0.5\text{A}$	0.385	0.430	0.510	
		$I_F = 1.0\text{A}$			0.620	
Maximum reverse breakdown voltage	V_R	$I_R=250\text{uA}$	20			V
		$I_R=200\text{uA}$		30		
		$I_R=20.0\text{uA}$			40	
Maximum reverse current	I_R	$V_R=10\text{V}$	75			uA
		$V_R=15\text{V}$		20		
		$V_R=20\text{V}$	250			
		$V_R=30\text{V}$		130		
		$V_R=40\text{V}$			20	
Capacitance between terminals	CT	$VR = 0\text{V}, f = 1\text{MHz}$		170		pF

Typical Characteristics

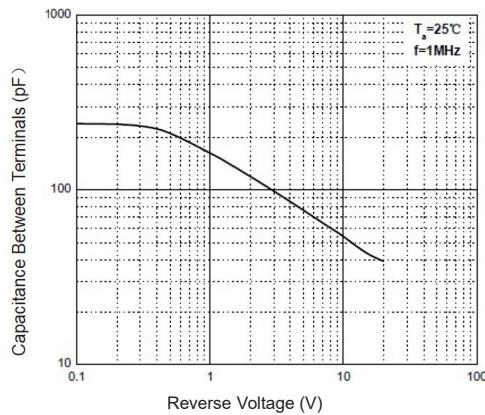
Forward Characteristics



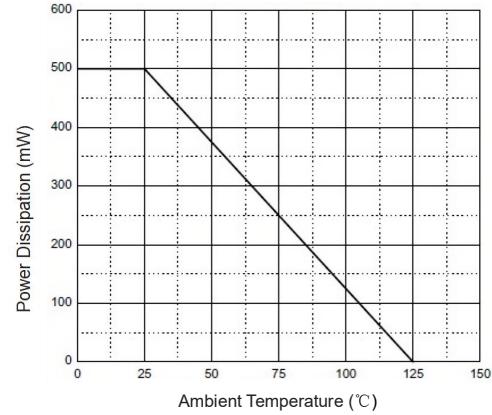
Reverse Characteristics



Capacitance Characteristics

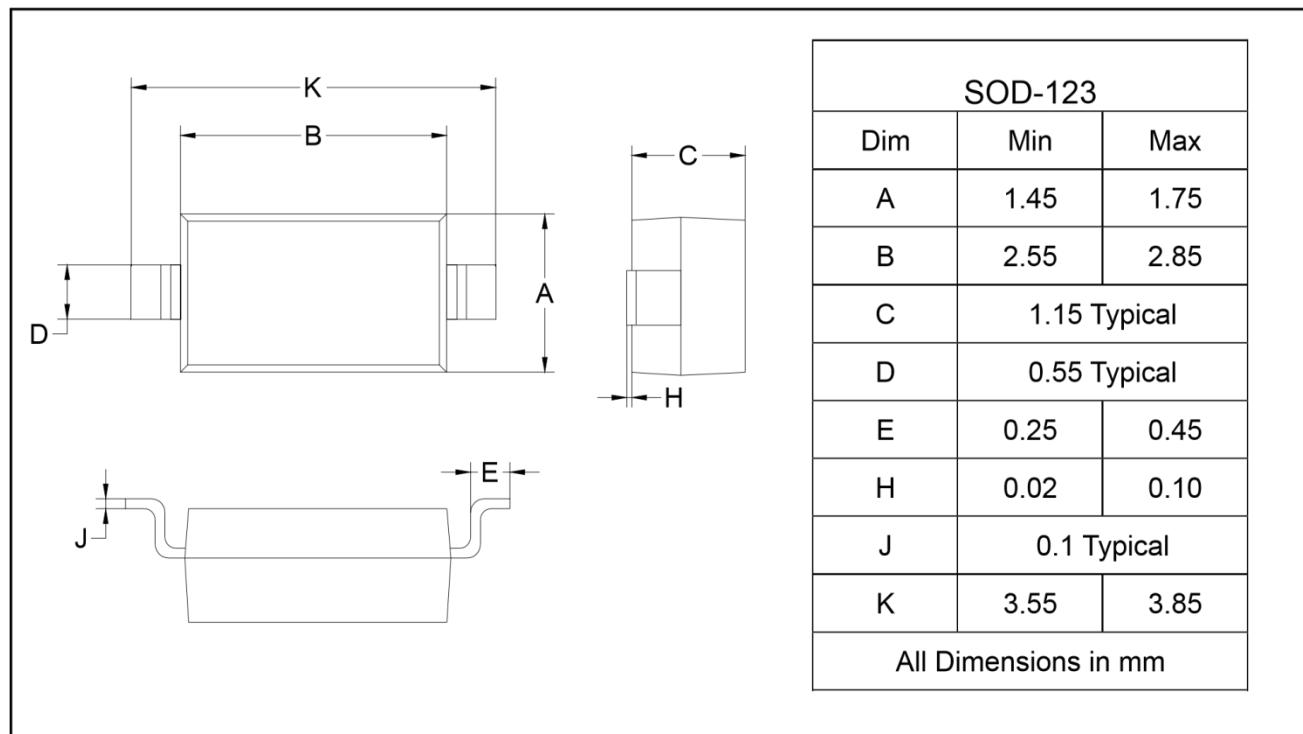


Power Derating Curve

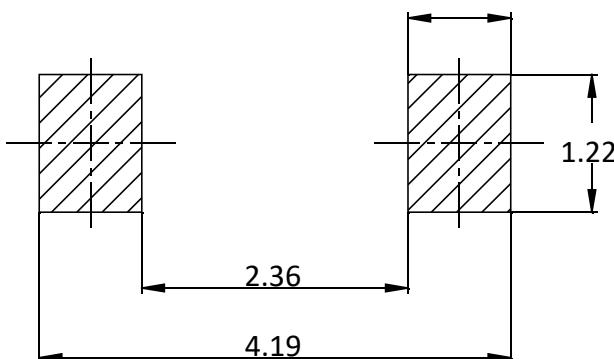


DB0520W-DB0540W

SOD-123 Package Outline



SOLDERING FOOTPRINT



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