



B0520W THRU B0540W Schottky Barrier Rectifiers

FEATURES

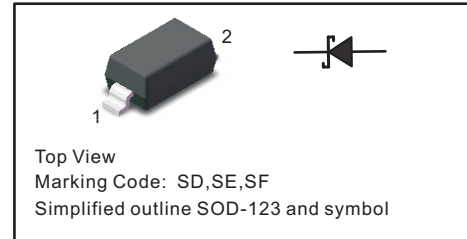
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version

MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 16mg/0.00056oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	B0520W	B0530W	B0540W	Units	
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V	
RMS reverse voltage reverse voltage (DC)	V_{RMS}	14	21	28	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V	
Maximum Average Forward Current at Ta=25°C	I_o	0.5			A	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25			A	
Maximum Instantaneous Forward Voltage	V_F	$I_F=0.1A$	0.330	0.375	—	V
		$I_F=0.5A$	0.390	0.430	0.510	
		$I_F=1A$	—	—	0.620	
Reverse current	I_R	$V_R=10V$	75	—	—	uA
		$V_R=15V$	—	20	—	
		$V_R=20V$	250	—	10	
		$V_R=30V$	—	130	—	
		$V_R=40V$	—	—	20	
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	200			°C/W	
Junction temperature	T_j	-55 ~ +125			°C	
Storage temperature	T_{stg}	-55 ~ +150			°C	



B0520W THRU B0540W Schottky Barrier Rectifiers

Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

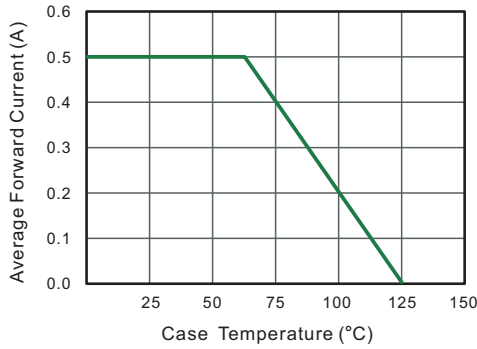


Fig.2 Typical Reverse Characteristics

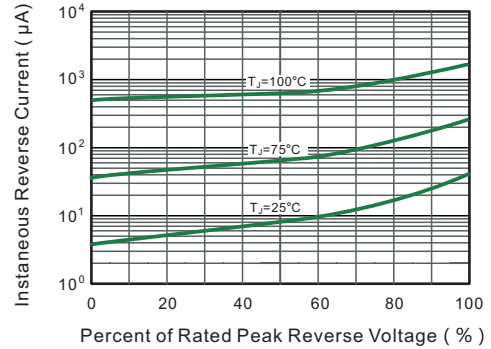


Fig.3 TYPICAL FORWARD VOLTAGE

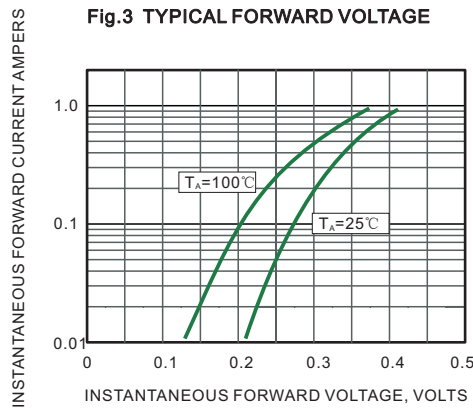


Fig.4 Typical Junction Capacitance

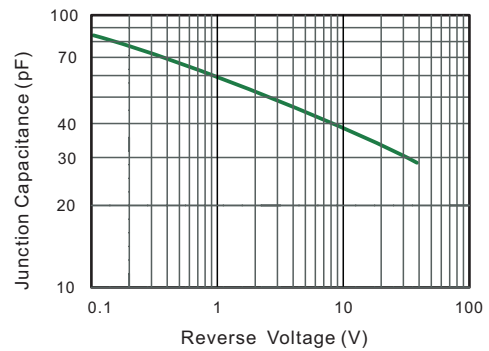


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

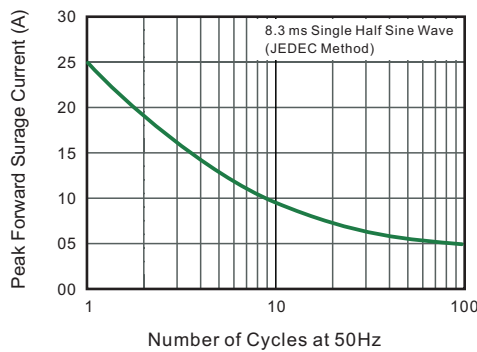
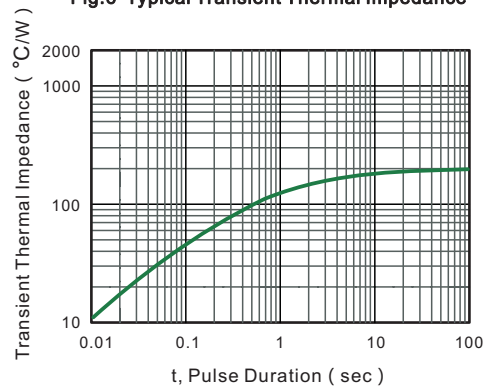


Fig.6 Typical Transient Thermal Impedance



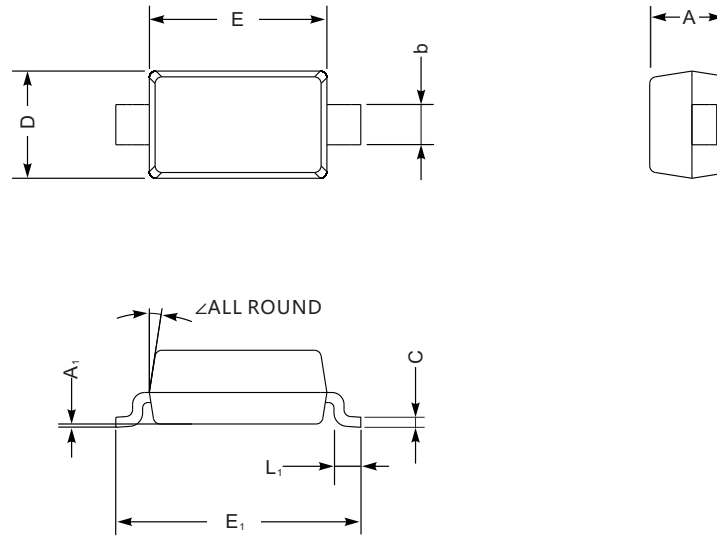


B0520W THRU B0540W Schottky Barrier Rectifiers

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

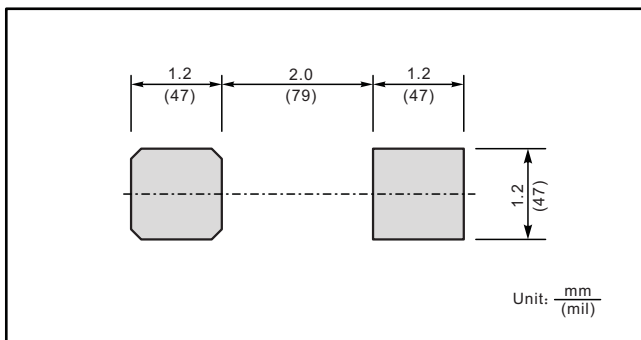
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Marking

Type number	Marking code
B0520W	SD
B0530W	SE
B0540W	SF

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Schottky Diodes & Rectifiers](#) category:

Click to view products by [Juxing Electronic Technology](#) manufacturer:

Other Similar products are found below :

[MA4E2039](#) [MMBD301M3T5G](#) [RB160M-50TR](#) [D83C](#) [BAS16E6433HTMA1](#) [BAS 3010S-02LRH E6327](#) [BAT 54-02LRH E6327](#)
[NRVBAF360T3G](#) [NSR05F40QNXT5G](#) [NTE555](#) [JANS1N6640](#) [SS3003CH-TL-E](#) [GA01SHT18](#) [CRS10I30A\(TE85L,QM](#) [MBRA140TRPBF](#)
[MBRB30H30CT-1G](#) [BAT 15-04R E6152](#) [JANTX1N5712-1](#) [DMJ3940-000](#) [SB007-03C-TB-E](#) [NRVBB20100CTT4G](#) [NRVBM120LT1G](#)
[NTSB30U100CT-1G](#) [CRG04\(T5L,TEMQ\)](#) [ACDBA1100LR-HF](#) [ACDBA1200-HF](#) [ACDBA240-HF](#) [ACDBA3100-HF](#) [CDBQC0530L-HF](#)
[ACDBA260LR-HF](#) [ACDBA1100-HF](#) [10BQ015-M3/5BT](#) [NRVBM120ET1G](#) [VSSB410S-M3/5BT](#) [1N5819T-G](#) [PDS1040Q-13](#) [B160BQ-13-F](#)
[SDM05U20CSP-7](#) [BAS 70-07 E6433](#) [B140S1F-7](#) [HSM560Je3/TR13](#) [DDB2265-000](#) [ZHCS506QTA](#) [HSM190Je3/TR13](#) [B330AF-13](#)
[ACDBUC0230-HF](#) [SDM1U100S1F-7](#) [MBR10200CTF-G1](#) [CDLL5712](#) [DMF2822-000](#)