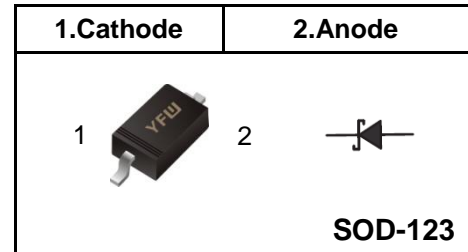


## ■ Schottky Barrier Rectifiers

### Pinning



### ■ Features

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

### Marking Code

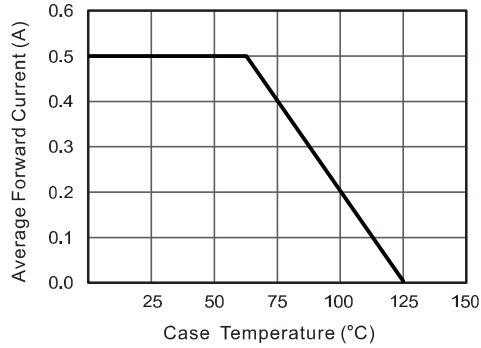
<b>B0520W</b>	<b>SD</b>
<b>B0530W</b>	<b>SE</b>
<b>B0540W</b>	<b>SF</b>

### ■ Maximum Ratings and Electrical characteristics

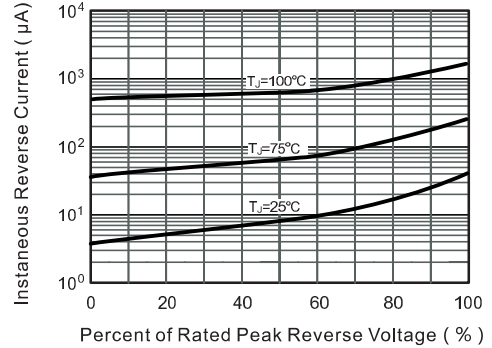
Ratings at 25 °C ambient temperature unless otherwise specified.

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	$I_F=0.1A$	0.330	0.375	—	V
	$I_F=0.5A$	0.390	0.430	0.510	
	$I_F=1A$	—	—	0.620	
Reverse current	$V_R=10V$	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

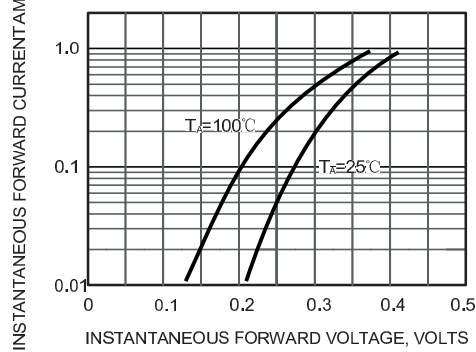
**Fig.1 Forward Current Derating Curve**



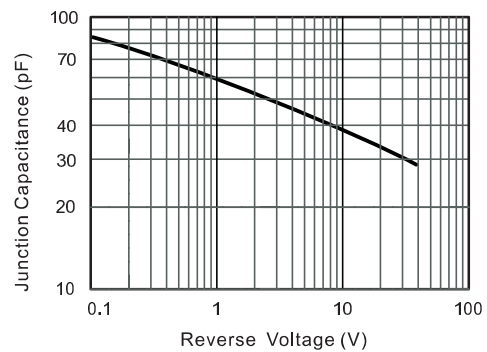
**Fig.2 Typical Reverse Characteristics**



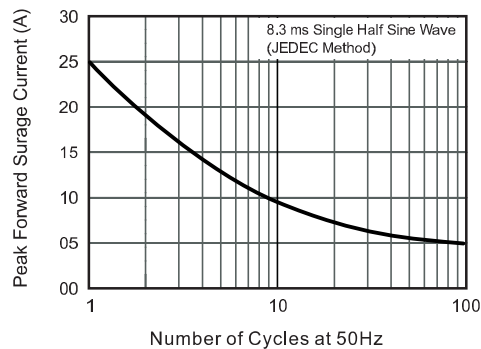
**Fig.3 TYPICAL FORWARD VOLTAGE**



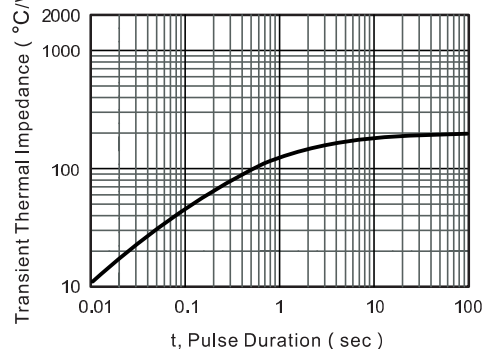
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.6 Typical Transient Thermal Impedance**



**Ordering information**

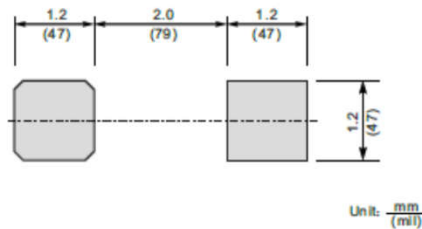
Package	Packing Description	Packing Quantity
SOD-123	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

**Package Dimensions**

**SOD-123**

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	51
C	0.09	0.22	3.5	8.7
D	1.5	1.8	59	71
E	2.5	2.8	98	110
E1	3.6	3.9	142	154
b	0.5	0.7	20	28
L1	0.25	0.45	10	18
A1	-	0.2	-	8
∠	9°			

**The recommended mounting pad size**



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