

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 40 V

Forward Current – 0.5 A

FEATURES

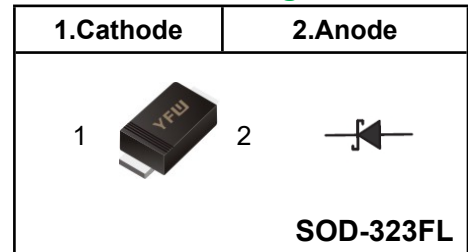
- ◆ Low Forward Voltage Drop
- ◆ Guard Ring Construction for Transient Protection
- ◆ High Conductance
- ◆ Also Available in Lead Free Version
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives



MECHANICAL DATA

- ◆ Case: SOD-323FL
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 4.5mg / 0.00016oz

Pinning



Marking Code

B0520WFL	SD
B0530WFL	SE
B0540WFL	SF

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	B0520WFL	B0530WFL	B0540WFL	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}	22			A
Maximum Instantaneous Forward Voltage	IF=0.1A	0.33	0.36	-	V
	IF=0.5A	0.39	0.45	0.51	
	IF=1A	-	-	0.62	
Reverse current	VR=10V	75	-	-	mA
	VR=15V	-	75	-	
	VR=20V	250	100	10	
	VR=30V	-	500	-	
	VR=40V	-	-	20	
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	500			°C/W
Junction temperature	T_j	-55 ~ +150			°C
Storage temperature	T_{stg}	-55 ~ +150			°C

Fig.1 Forward Current Derating Curve

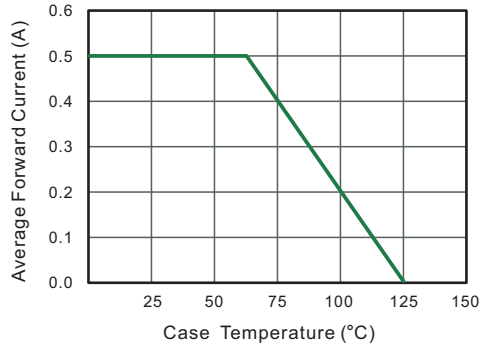


Fig.2 Typical Reverse Characteristics

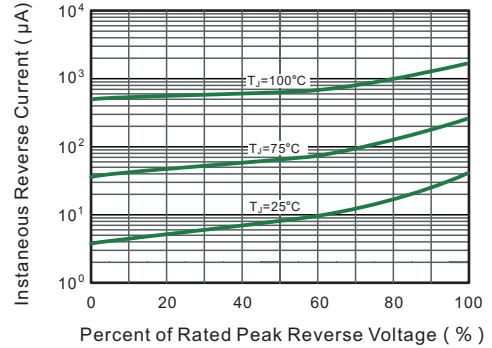


Fig.3 TYPICAL FORWARD VOLTAGE

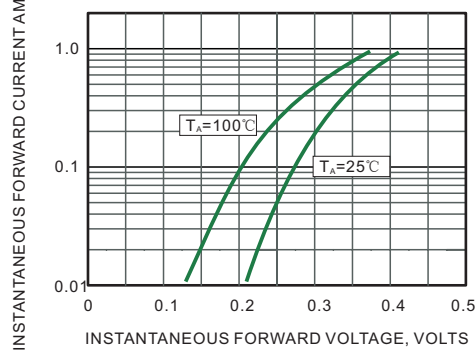


Fig.4 Typical Junction Capacitance

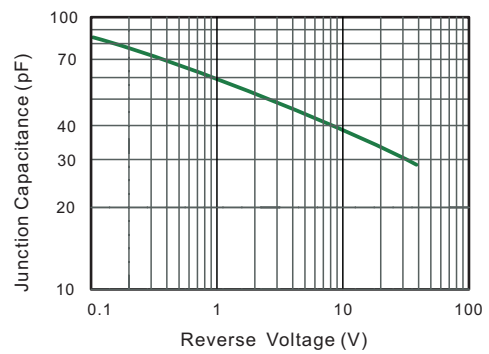


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

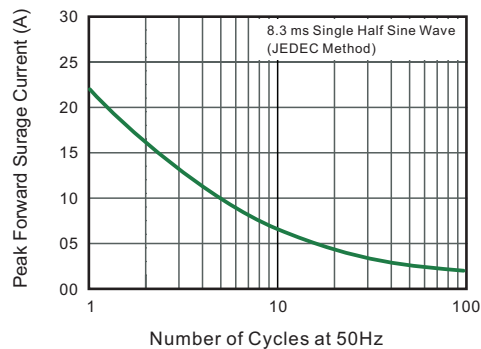
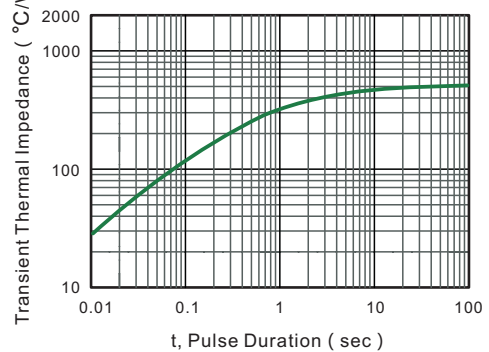
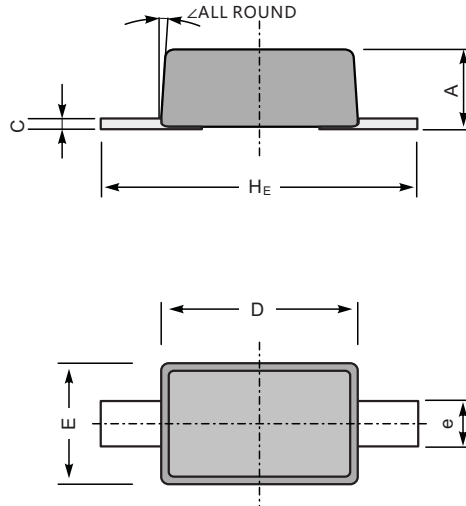


Fig.6 Typical Transient Thermal Impedance



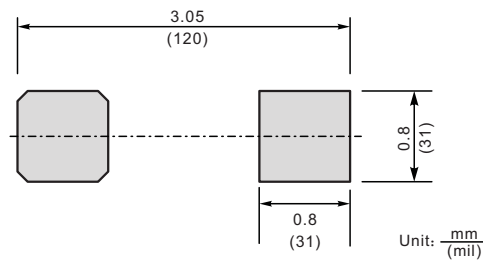
Package Outline SOD-323FL

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	H _E	\angle
mm	max	1.0	0.25	1.8	1.35	0.4	2.7	8°
	min	0.8	0.05	1.6	1.15	0.25	2.3	
mil	max	39	9.8	71	53	18	106	
	min	31	2.0	63	45	10	91	

The recommended mounting pad size



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323FL	Tape/Reel, 7" reel	3000	EIA-481-1