

5.0Amp Surface Mounted Schottky Barrier Rectifiers

Reverse Voltage – 20-200V

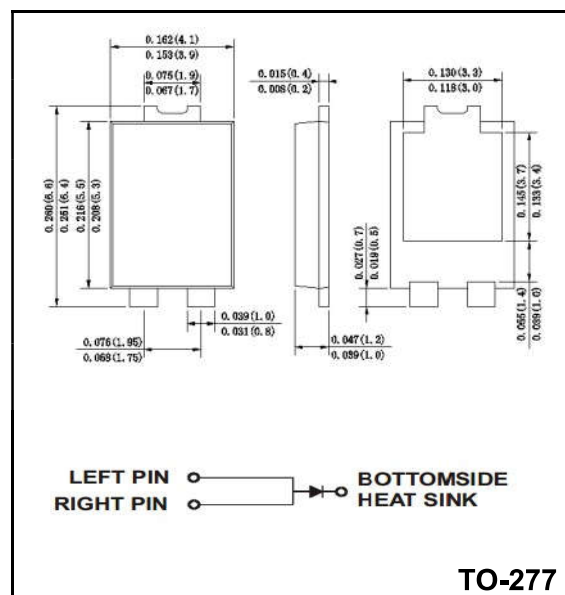
Forward Current - 5 A

FEATURES

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250 C/10 seconds at terminals

MECHANICAL DATA

- ◆**Case:** Molded plastic body
- ◆**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ◆**Polarity :** Polarity symbol marking on body
- ◆**Mounting Position :** Any
- ◆**Weight :** 0.003 ounce, 0.092 grams



Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Ratings at 25 C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	SS520SP	SS540SP	SS560SP	SS580SP	SS5100SP	SS5150SP	SS5200SP	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	31.5	35	42	56	70	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	100	200	V
Maximum average forward rectified current at $T_L=100\text{ C}$	$I_{F(AV)}$	5.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave superimposed on rated load per diode	I_{FSM}	120.0							A
Operating Temperature Range	T_J	-55 ~ +150							°C
Storage Temperature Range	T_{STG}	-55 ~ +150							°C
Typical thermal resistance	$R_{\theta JC}$	60.0							°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbols	SS520SP	SS540SP	SS560SP	SS580SP	SS5100SP	SL5150SP	SS5200SP	Units
Maximum instantaneous forward voltage at 5.0A	V_F	0.55		0.70	0.85		0.95		V
Maximum DC reverse current at rated DC blocking voltage	$T_A = 25\text{ C}$	I_R		0.5		0.05		10	mA
	$T_A = 125\text{ C}$								

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

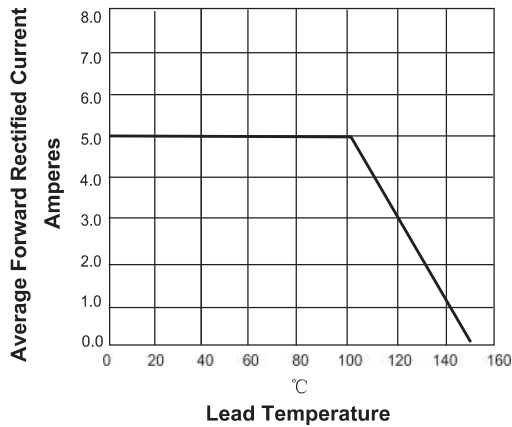


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

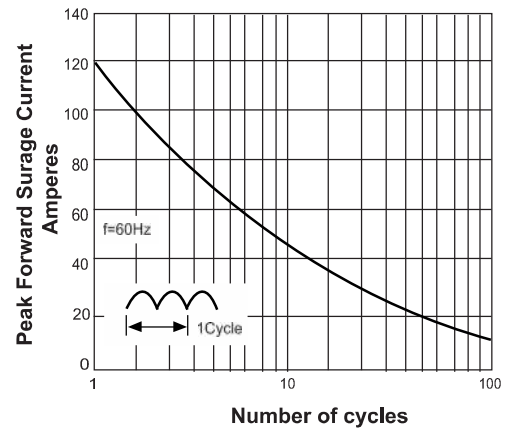


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

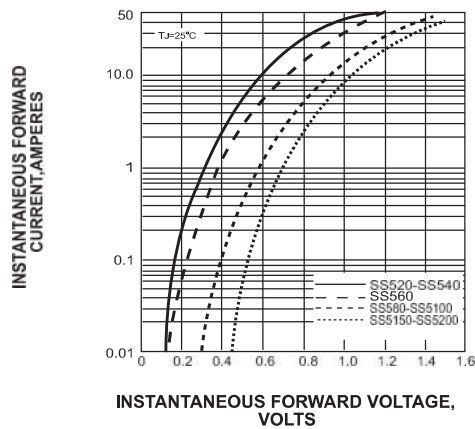
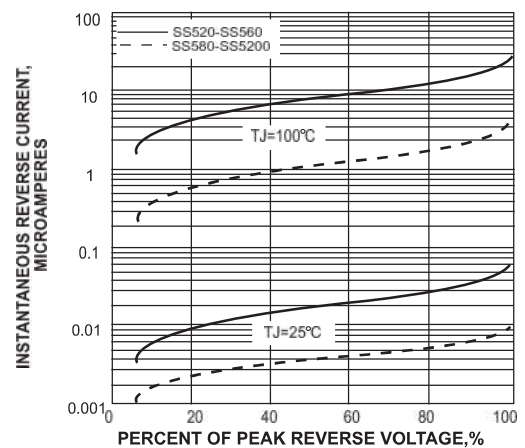


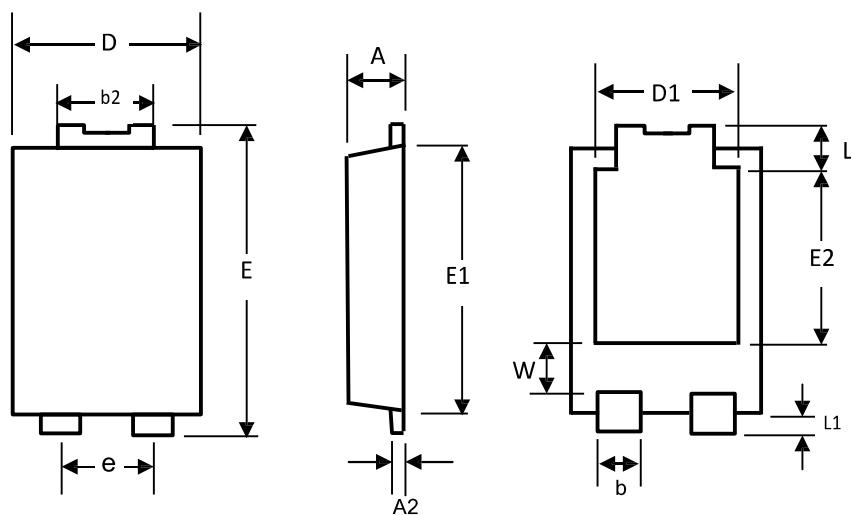
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline

TO-277

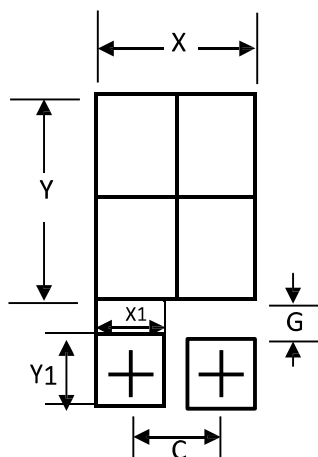
Plastic surface mounted package; 3 leads



Dim	Min	Max
A	1.1	1.2
A2	0.3	0.4
b1	0.8	1
b2	1.7	1.9
D	3.9	4.1
D1	3.054	
E	6.4	6.6
e	1.84	
E1	5.3	5.5
E2	3.549	
L	0.8	1
L1	0.5	0.7
W	1.1	1.4

unit:mm

Mounting Pad Layout



Dim	Min
C	1.8
G	0.9
X	3.4
X1	1.4
Y	4.9
Y1	1.4

unit:mm

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
TO-277	Tape/Reel, 13" reel	5000	EIA-481-1