

## Surface Mounted Schottky Barrier Rectifiers

Reverse Voltage - 40V ~ 100V

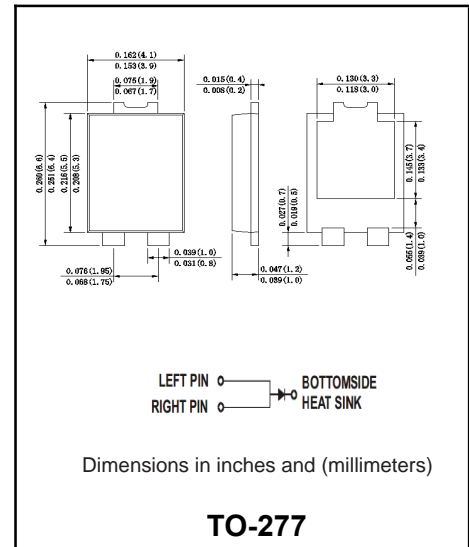
Forward Current - 20 A

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Low forward voltage drop
- ◆ 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 And Electrical Characteristics

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	20L40SP	20L45SP	20L50SP	20L60SP	20L80SP	20L100SP	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	45	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	28	31.5	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	40	45	50	60	80	100	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	20.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	300.0						A
Maximum instantaneous forward voltage at 2.0A at 20.0A	$V_F$	0.35 0.48		0.40 0.55		0.45 0.70		V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	0.5 50				0.2 20		mA
Typical thermal resistance	$R_{qJA}$	60.0						$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to +150						$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150						$^\circ\text{C}$

**Ratings And Characteristic Curves**

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

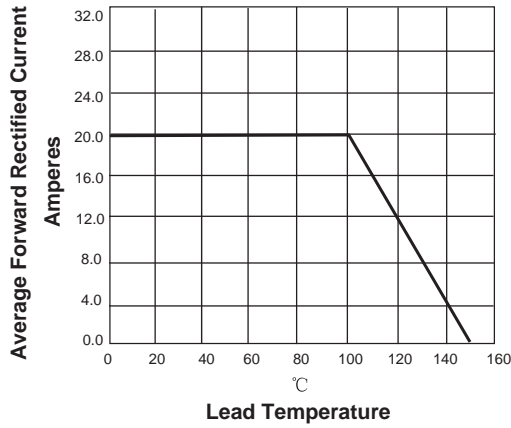


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

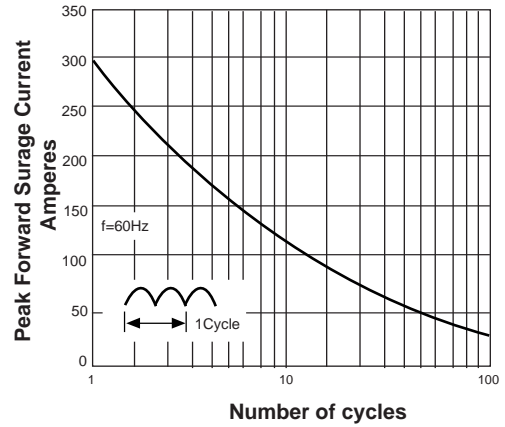


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

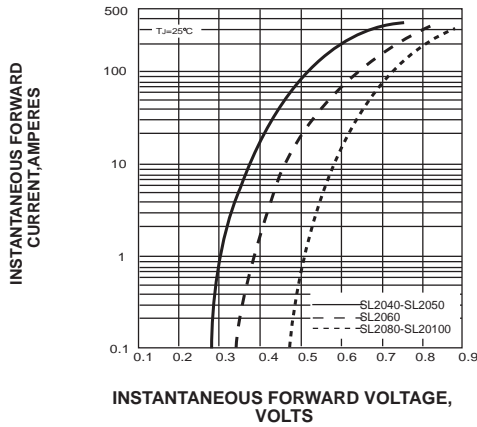
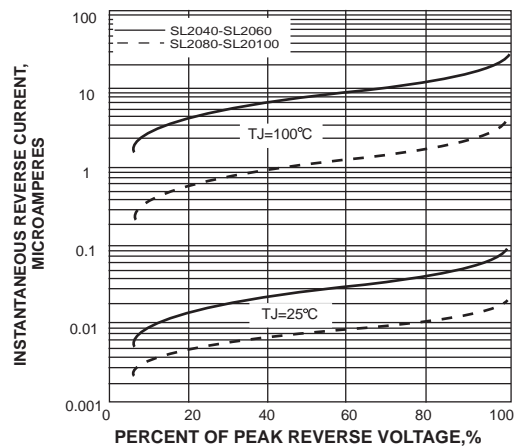
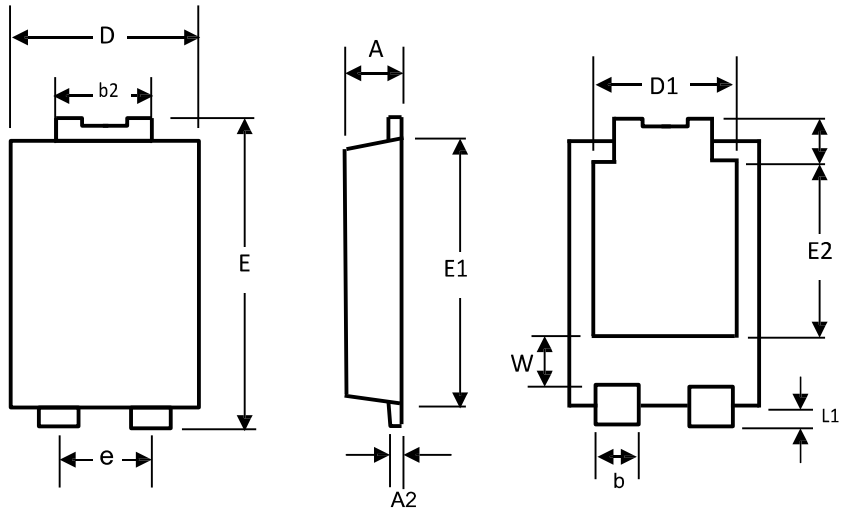


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



**Package Outline TO-277**

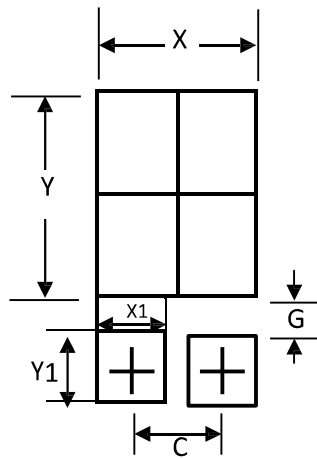
Plastic surface mounted package; 3 leads



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

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