

**Surface Mounted Trench Schottky Barrier Rectifiers**

**Reverse Voltage - 150 V**

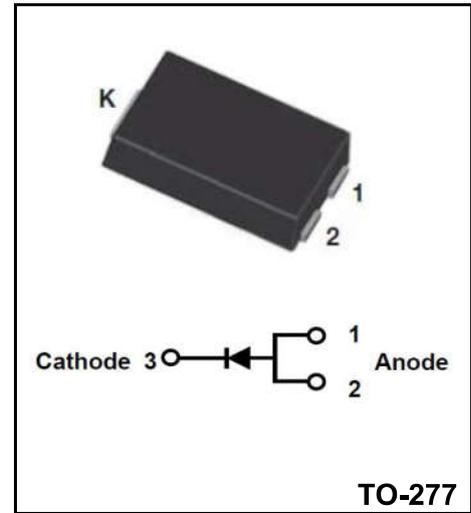
**Forward Current - 20 A**

**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 260°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 (Ta=25°C unless otherwise specified)**

PARAMETER	SYMBOLS	20L150SP	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	150	V
Maximum RMS voltage	V <sub>RMS</sub>	105	V
Maximum DC blocking voltage	V <sub>DC</sub>	150	V
Maximum average forward rectified current at T <sub>L</sub> =100°C	I <sub>(AV)</sub>	20.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	275.0	A
Typical thermal resistance	R <sub>qjc</sub>	8	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

Note: Thermal resistance from junction to case lead mounted on P.C.B. with 10.0 mm x 10.0 mm) copper pad areas

**Electrical Characteristics(Ta=25°C unless otherwise specified)**

PARAMETER	SYMBOLS	TYPE	MAX	UNITS
Maximum instantaneous forward voltage at 20.0A	V <sub>F</sub>	0.81	0.86	V
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>A</sub> =25°C	50	u A
		T <sub>A</sub> =100°C	10	mA

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

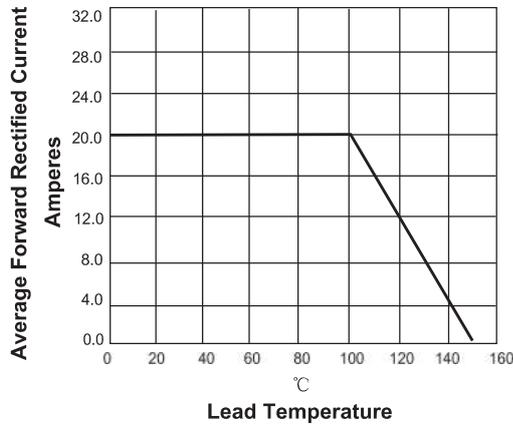


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

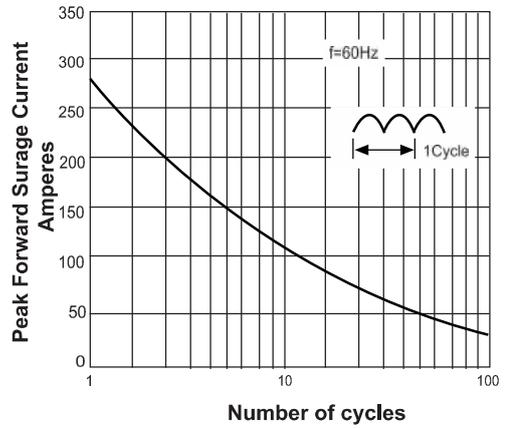


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

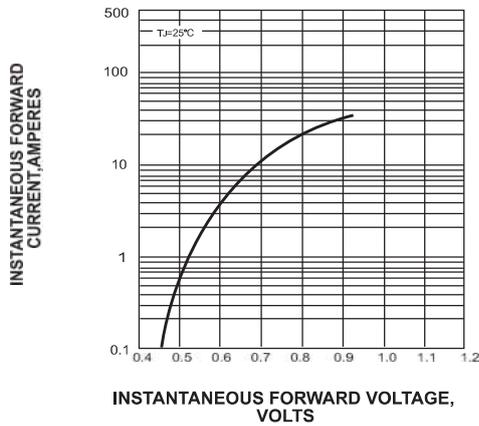
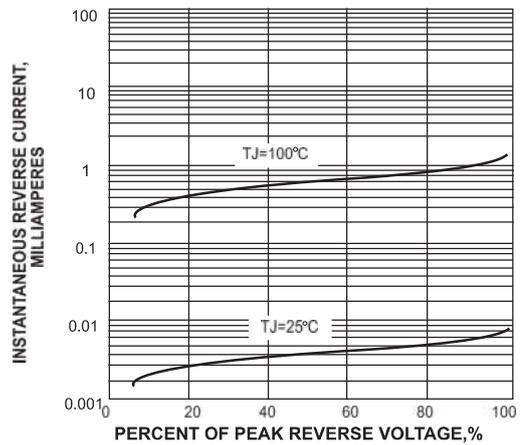
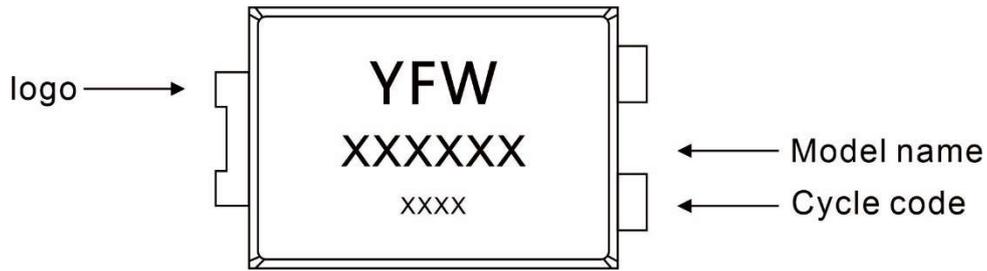


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



**Marking Diagram**



**Ordering information**

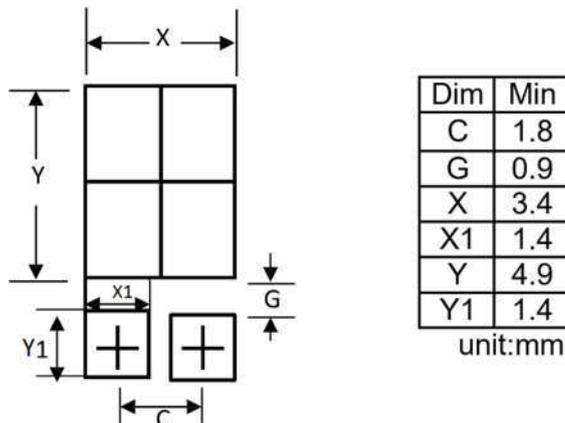
Package	Packing Description	Packing Quantity
TO-277	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Carton

**Package Dimensions**

**TO-277**

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.1	1.2	43	47
A2	0.3	0.4	12	16
b1	0.8	1	32	39
b2	1.7	1.9	67	75
D	3.9	4.1	154	162
D1	3.054		120	
E	6.4	6.6	252	260
e	1.84		73	
E1	5.3	5.5	209	217
E2	3.549		140	
L	0.8	1	32	39
L1	0.5	0.7	20	28
W	1.1	1.4	43	55

**The recommended mounting pad size**



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