

5.0Amp Surface Mounted Schottky Barrier Rectifiers

Reverse Voltage - 40 to 200V

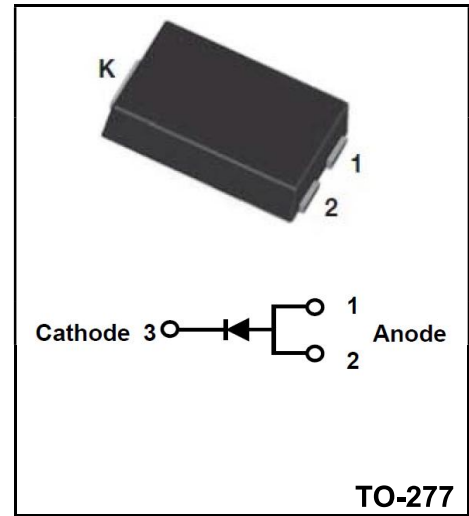
Forward Current - 5 A

FEATURES

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆For surface mounted applications
- ◆Built-in strain relief,ideal for automated placement
- ◆Low reverse leakage
- ◆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 : 0.008 ounce, 0.225 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 | 5L40SP | 5L45SP | 5L60SP | 5L80SP | 5L100SP | 5L150SP | 5L200SP | Units |
|--|-----------------|-------------|--------|--------|-----------|---------|---------|---------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 40 | 45 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum RMS voltage | V_{RMS} | 28 | 31.5 | 42 | 56 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | V_{DC} | 40 | 45 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum average forward rectified current at $T_L=100\text{ }^\circ\text{C}$ | $I_{(AV)}$ | 5.0 | | | | | | | A |
| Peak forward surge current,8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 120.0 | | | | | | | A |
| Maximum instantaneous forward voltage at 5.0A | V_F | 0.48 | 0.55 | 0.70 | 0.85 | | | | V |
| Maximum DC reverse current at rated DC blocking voltage $T_A=25\text{ }^\circ\text{C}$ $T_A=125\text{ }^\circ\text{C}$ | I_R | 0.5 50 | | | 0.2 20 | | | mA | |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | °C |
| Typical thermal resistance | T_{STG} | -55 to +150 | | | | | | | °C |
| Typical thermal resistance | $R_{\theta JA}$ | 60.0 | | | | | | | °C/W |

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

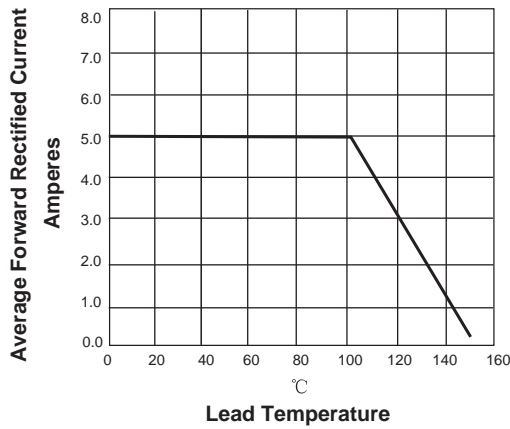


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

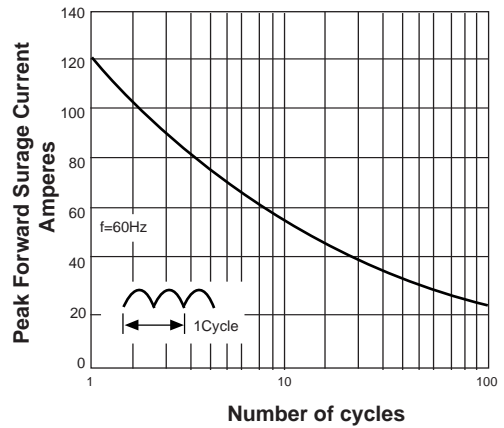


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

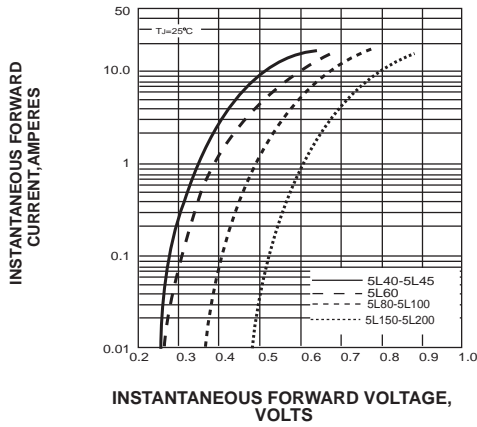
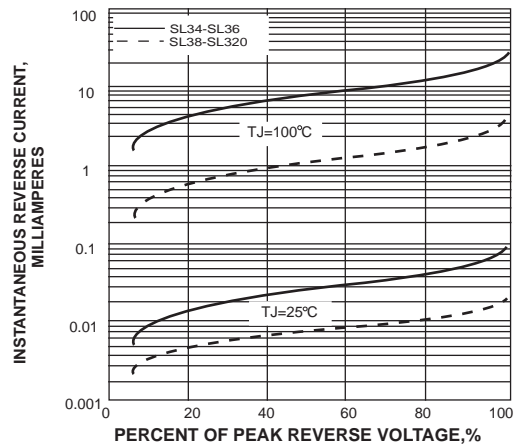
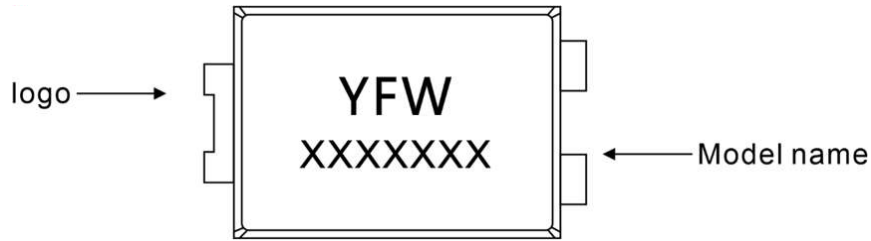


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

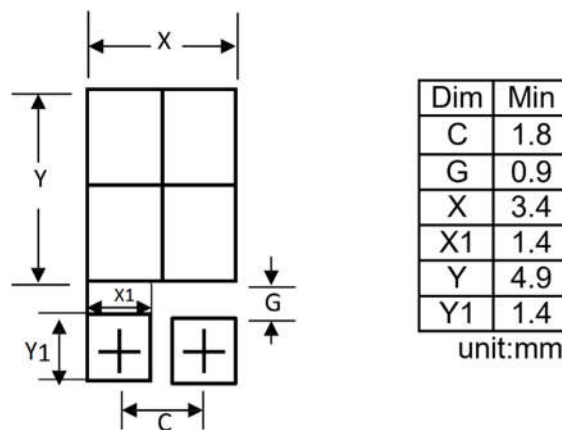
| Package | Packing Description | Packing Quantity |
|---------|---------------------|------------------------------|
| TO-277 | Tape/Reel, 13"reel | 5000PCS/Reel 50000PCS/Carton |

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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