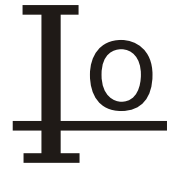


# SP10U80L

## 10.0A Surface Mount Schottky Barrier Rectifiers



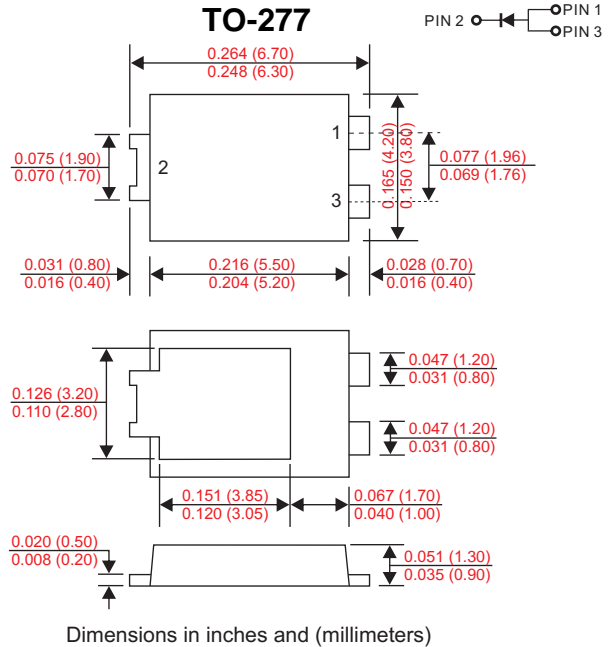
### Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Fow Power Loss,High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0

### Mechanical Data

- Case: TO-277B, molded plastic
- Terminals:Plated Leads Solderable per MIL-STD-202,Method 208
- Polarity:Cathode Band
- Mounting Position:Any
- Marking:Type Number
- Lead Free:For RoHS/Lead Free Version

### TO-277



### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	SP10U80L		Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	80		V
Working Peak Reverse Voltage	$V_{RWM}$			V
DC blocking voltage	$V_{DC}$			V
RMS Rectified Voltage	$V_{R(RMS)}$	56		V
Average Rectified Output Current (Note1)	$I_F(AV)$	10.0		A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method) (Note2)	$I_{FSM}$	150		A
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	93.375		$A^2s$
Forward Voltage Drop $T_A = 25^\circ\text{C}$ @ $I_F = 1\text{A}$ $T_A = 25^\circ\text{C}$ @ $I_F = 5\text{A}$ $T_A = 25^\circ\text{C}$ @ $I_F = 10\text{A}$	$V_{FM}$	Typ. 0.40 0.50 0.56	Max. - - 0.65	V
Peak Reverse Current At Rated DC Blocking Voltage $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	0.3 15		mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ $R_{\theta JL}$	80 15		$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150		$^\circ\text{C}$
storage temperature range	$T_{STG}$	-55 to +150		$^\circ\text{C}$
Voltage rate of change (Rated $V_R$ )	$dV/dt$	10000		$\text{V}/\mu\text{s}$

Note:1. Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.

2. Fr-4pcb. 2oz. Copper, minimum recommend pad layout .18.8mm×14.4.Anode pad dimensions 5.6mm×14.4mm.

# SP10U80L

## 10.0A Surface Mount Schottky Barrier Rectifiers

Fig.1 - Forward Current Derating Curve

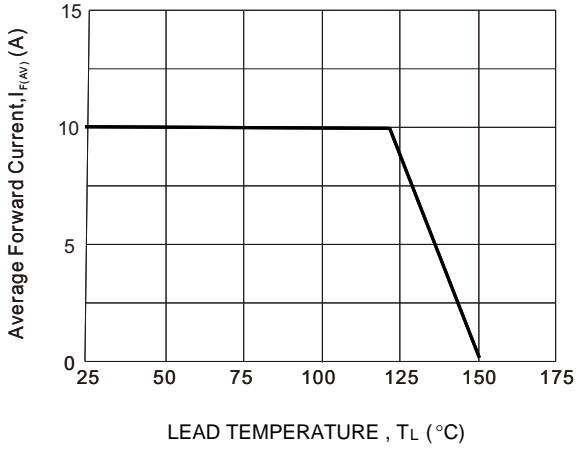


Fig. 2 Typical Forward Characteristics (per leg)

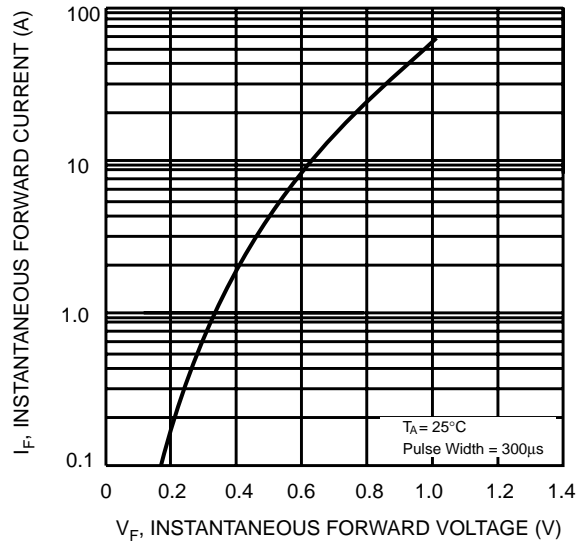


Fig. 3 Maximum Peak Forward Surge Current (per leg)

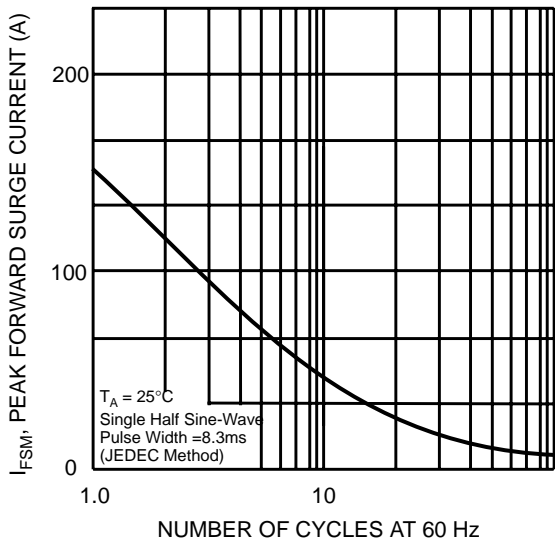


Fig4: Typical Reverse Characteristics

