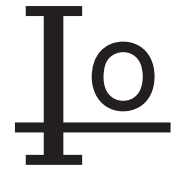


SP10U60L

LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 60 Volts

Forward Current - 10.0Amperes

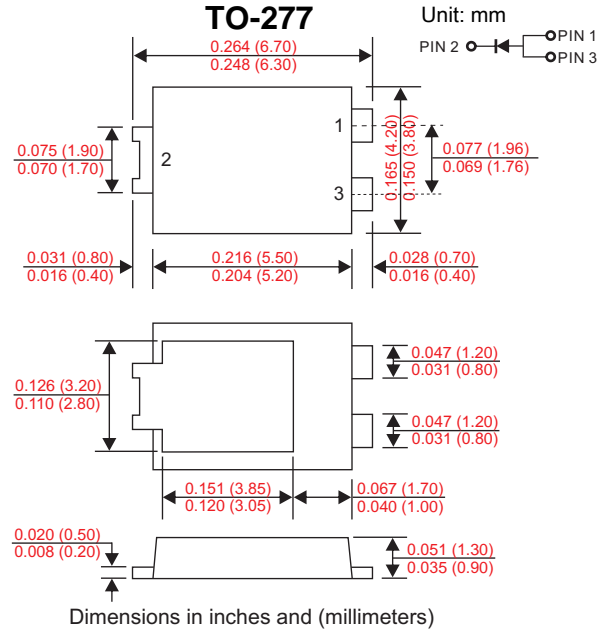


FEATURES

- Low forward voltage drop (V_F) helps – minimizes power losses
- Excellent stability at higher temperatures
- Thermally efficient package for cooler running applications
- Less than 1.1mm package profile ideal for thin applications

MECHANICAL DATA

- Case Material: Molded Plastic, Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Connections: See Diagram Below
- Weight: 0.092 grams (approximate)
- Lead Free: Finish / RoHS Compliant



MAXIMUM RATINGS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	SP10U60L	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum average forward rectified current	$I_{F(AV)}$	10	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$
Voltage Rate of Change (Rated V_R)	dv/dt	10,000	$\text{V}/\mu\text{s}$

ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	TYP.	MAX.	UNIT	
Instantaneous Forward Voltage	$I_F=5\text{A}$	V_F	0.41	----	Volts	
				$T_A=25^\circ\text{C}$		0.50
	$I_F=10\text{A}$		$T_A=125^\circ\text{C}$			0.37
				0.50		----
Instantaneous reverse current	$V_R=60\text{V}$	I_R	$T_A=25$	0.06	0.15	
			$T_A=125$	20	50	
Typical junction capacitance	4.0 V, 1 MHz	C_J	570		pF	
Typical Thermal Resistance	$R_{\theta JA}$	60		$^\circ\text{C}/\text{W}$		
	$R_{\theta JL}$	3.0				

NOTES: 1. 300us pulse width, 2% duty cycle.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to case

SP10U60L

FIG.1-FORWARD CURRENT DERATING CURVE

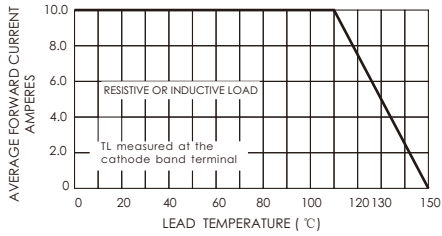


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

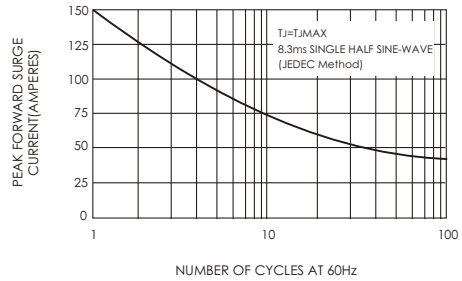


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

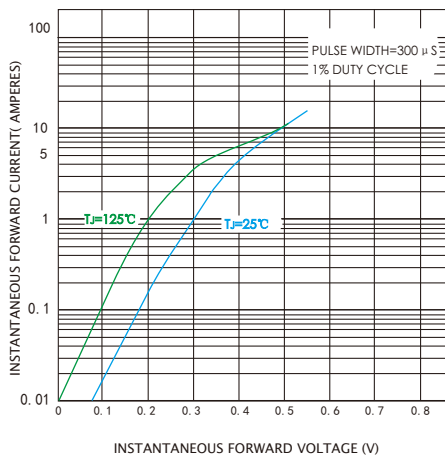


FIG.4-TYPICAL REVERSE CHARACTERISTICS

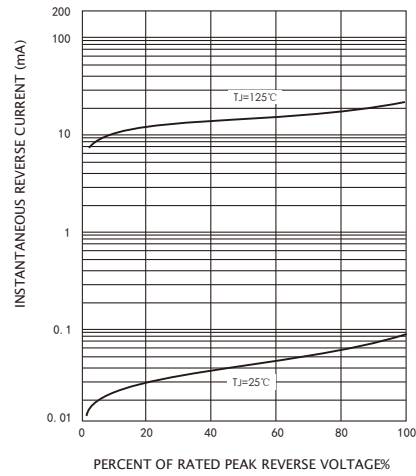


FIG.5-TYPICAL JUNCTION CAPACITANCE

