

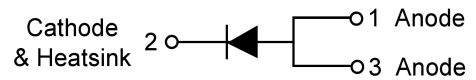
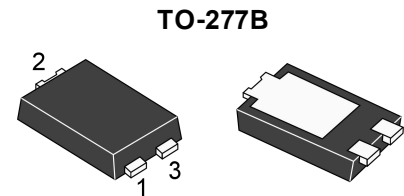


Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low 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



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	SP 2045L	SP 2050L	SP 2060L	SP 2080L	SP 20100L	UNITS
Maximum repetitive peak reverse voltage	V_{RMM}	45	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	32	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig. 1)	$I_{(AV)}$	20.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250.0					A
Maximum instantaneous forward voltage at 20.0A	V_F	0.485	0.59		0.66		V
Maximum DC reverse current at rated DC blocking voltage	I_R	0.15					mA
$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$		15.0					
Typical junction capacitance (NOTE 1)	C_J	80					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	15.0					$^\circ\text{C}/\text{W}$
Operating junction and storage	T_J	-65 to +125			-65 to +150		$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150					$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

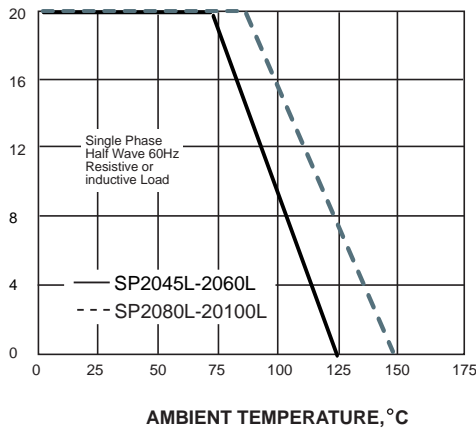
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



SP2045L THRU SP20100L

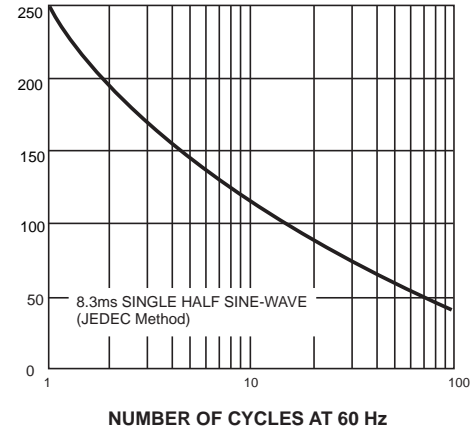
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



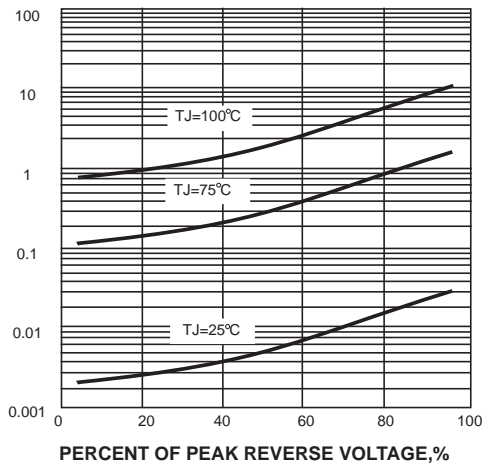
PEAK FORWARD SURGE CURRENT,
AMPERES

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



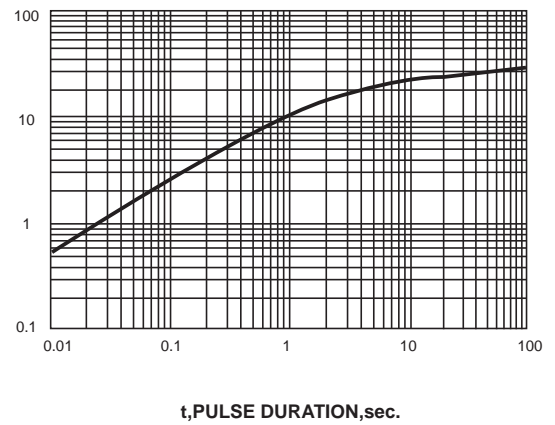
INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 3-TYPICAL REVERSE CHARACTERISTICS



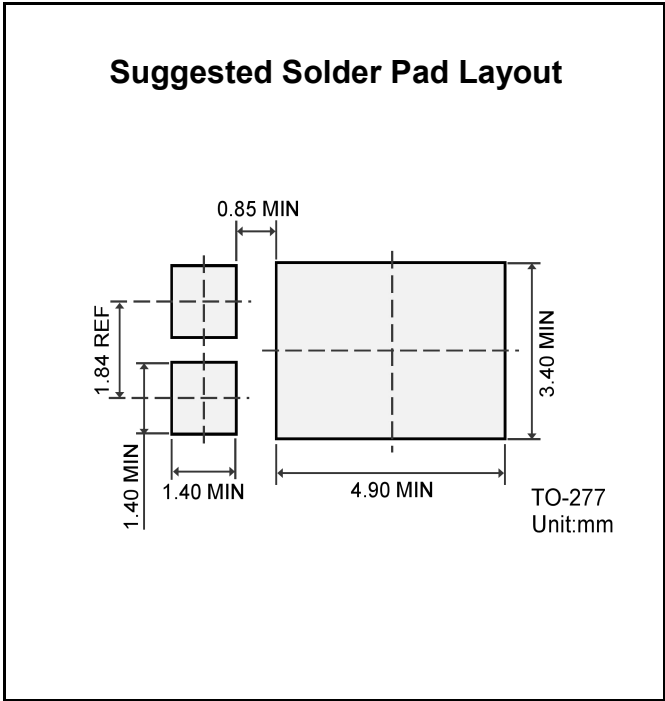
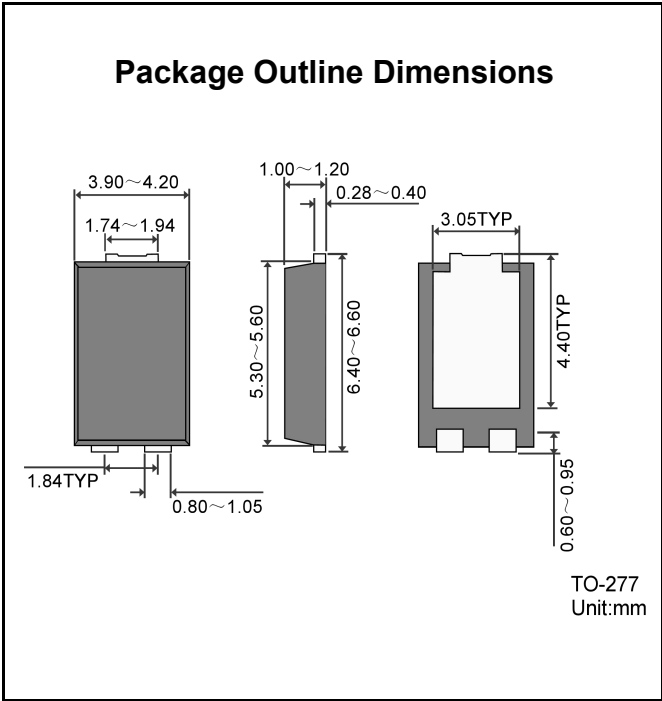
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 4-TYPICAL TRANSIENT THERMAL IMPEDANCE





Package Outline Dimensions & Suggested Solder Pad Layout



Packing Information

Packaging	Package	Reel Quantity	Reel Size	Tape Size
Reel	TO-277B	5000 pcs	13'	12 mm

