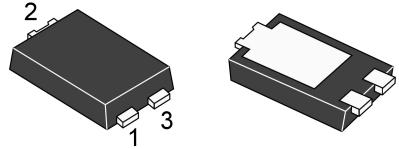


# SP4150

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

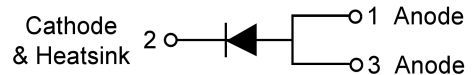
### Features

- 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



**TO-277B**

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load, derate by 20%.)

	Symbols	SP 4150	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	150	Volts
Maximum RMS voltage	V <sub>RMS</sub>	105	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	150	Volts
Maximum average forward rectified current (see Fig.1)	I(AV)	4.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	180.0	Amps
Maximum instantaneous forward voltage at 4.0 A (Note 1)	V <sub>F</sub>	0.76	Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	I <sub>R</sub>	T <sub>s</sub> = 25°C	0.1
		T <sub>s</sub> = 125°C	40
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	2.5	°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150	°C
Storage temperature range	T <sub>STG</sub>	-65 to +150	°C

Notes: 1. Pulse test: 300 μs pulse width, 1% duty cycle

2. Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

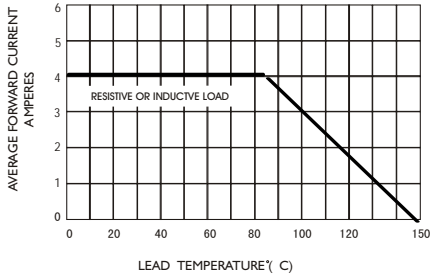


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

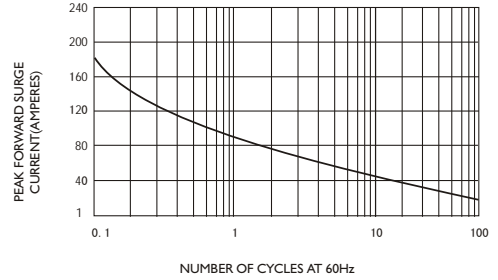


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

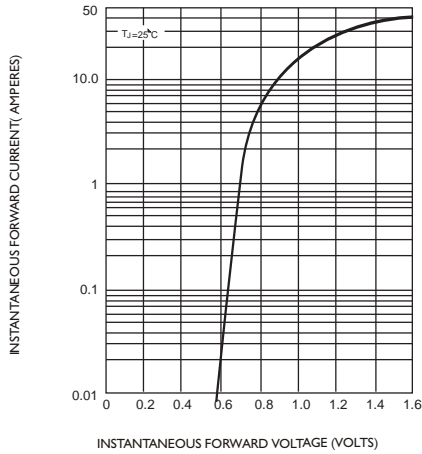


FIG.4-TYPICAL REVERSE CHARACTERISTICS

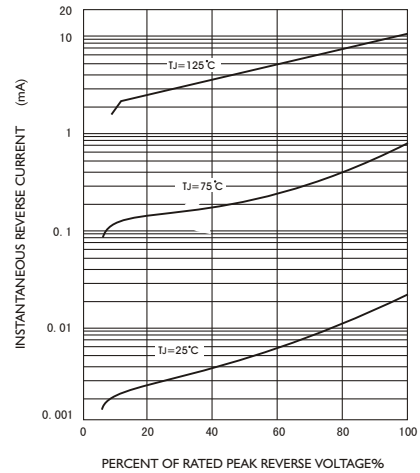


FIG.5-TYPICAL JUNCTION CAPACITANCE

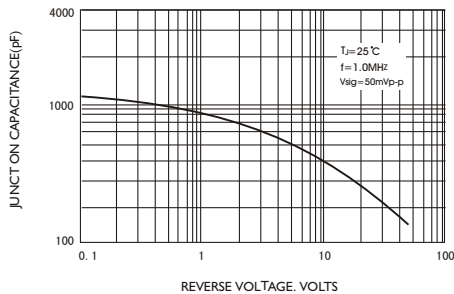


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

