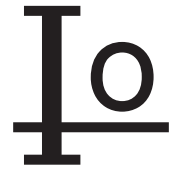


SP20U45L

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 45 Volts Forward Current - 20 Amperes



FEATURS

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
 - Metal silicon junction ,majority carrier conduction
 - Guard ring for overvoltage protection
 - Low power loss ,high efficiency
 - High current capability ,low forward voltage drop
 - High surge capability
 - Very low profile-typical height of 1.1mm
 - Ideal for automated placement
 - High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

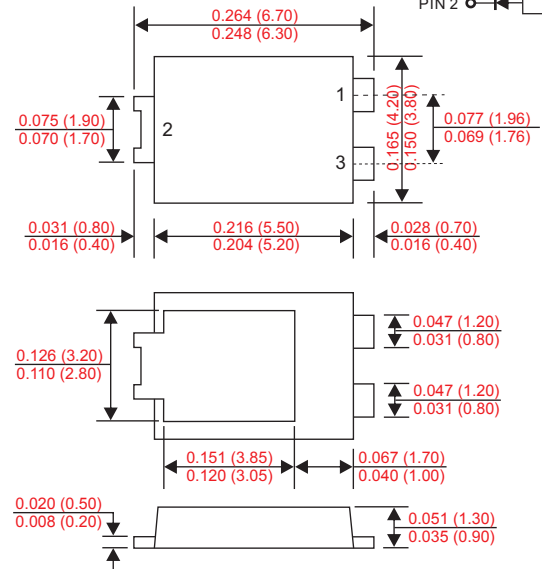
MECHANICAL DATA

- Case: TO-277 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Mounting Position: Any
- Lead Free:Finish / RoHS Compliant

TO-277

Unit: mm

PIN 2 PIN 1
PIN 3



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	SP20U45L	Units
Maximum repetitive peak reverse voltage	V _{RRM}	45	Volts
Maximum RMS voltage	V _{RMS}	32	Volts
Maximum DC blocking voltage	V _{DC}	45	Volts
Maximum average forward rectified current See Fig. 1	I _(AV)	20.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	180	Amps
Maximum instantaneous forward voltage at 20A	V _F	0.5 0	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I _R	0.5	mA
		30	
Typical thermal resistance (Note 2)	R _{θJC}	3.0	°C/W
Operating junction temperature range	T _J	-65 to +150	°C
Storage temperature range	T _{STG}	-65 to +150	°C
Voltage Rate of Change (Rated V _R)	dv/dt	10,000	V/μs

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

2.Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

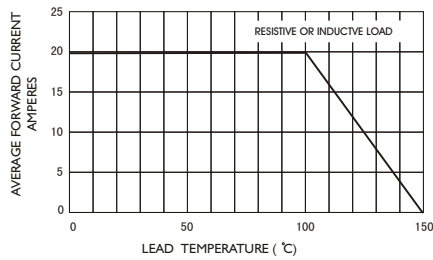


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

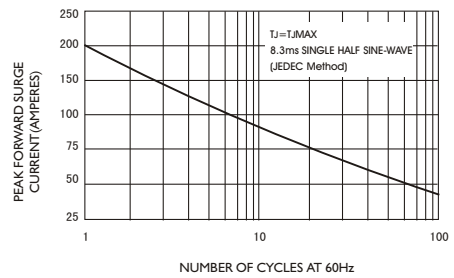


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

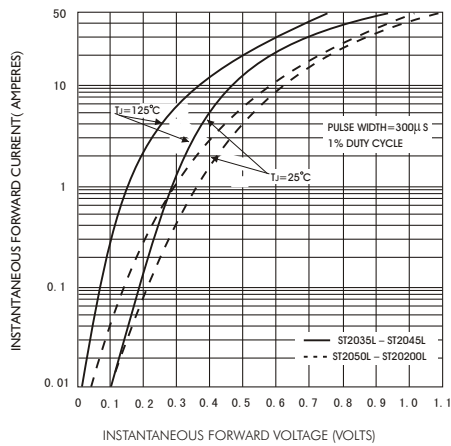


FIG.4-TYPICAL REVERSE CHARACTERISTICS

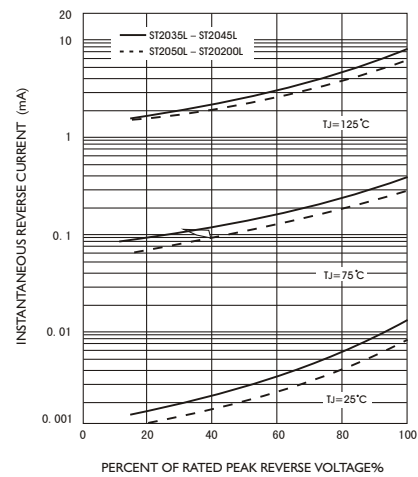


FIG.5-TYPICAL JUNCTION CAPACITANCE

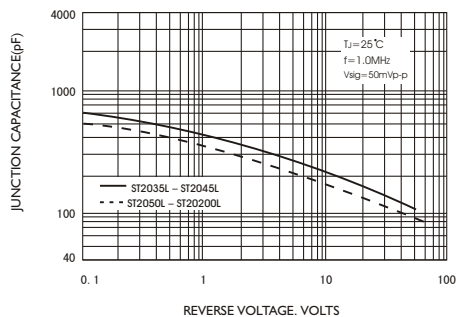


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

