



SPKC1290

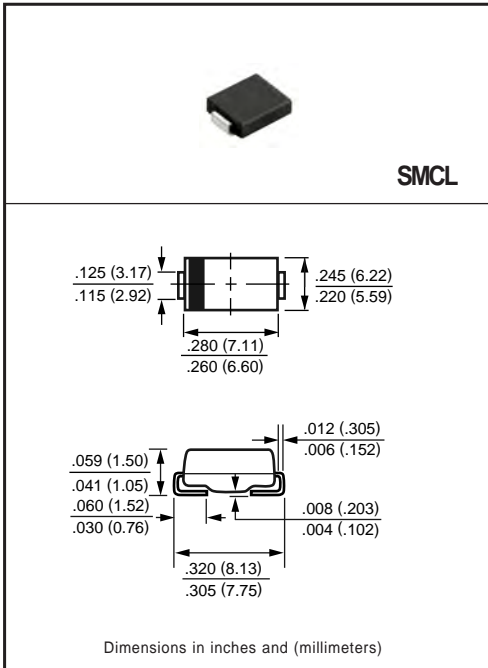
SCHOTTKY BARRIER RECTIFIER
VOLTAGE 90 Volts CURRENT 12.0 Amperes

FEATURES

- * High reliability
- * Low switching loss
- * Low forward voltage drop
- * High current capability
- * High switching capability

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * Case: Molded plastic
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting: position: Any
- * Weight: 0.33 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SPKC1290	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	90	Volts
Maximum RMS Voltage	V _{RMS}	63	Volts
Maximum DC Blocking Voltage	V _{DC}	90	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	I _O	12.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150	Amps
Typical Thermal Resistance (Note 1)	R _{θJC}	2.0	°C/W
	R _{θJA}	60	
Typical Junction Capacitance (Note 2)	C _J	700	pF
Operating Temperature Range	T _J	175(T _J ≤ 200°C in By pass Mode)	°C
Storage Temperature Range	T _{STG}	-55 to + 175	°C

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	SPKC1290	UNITS
Maximum Instantaneous Forward Voltage at 12.0A DC	V _F	.65	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	0.1	mA
	@T _A = 100°C	2	mA

NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
4. Suffix "R" for Reverse Polarity.
5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

2010-05
REV: A

RATING AND CHARACTERISTICS CURVES (SPKC1290)

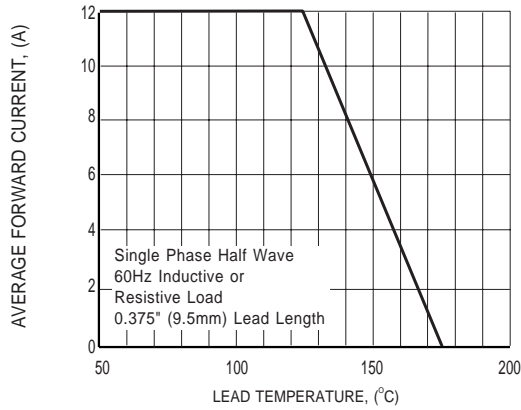


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

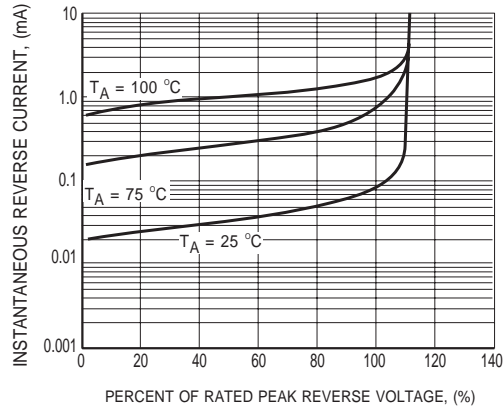


FIG.2 TYPICAL REVERSE CHARACTERISTICS

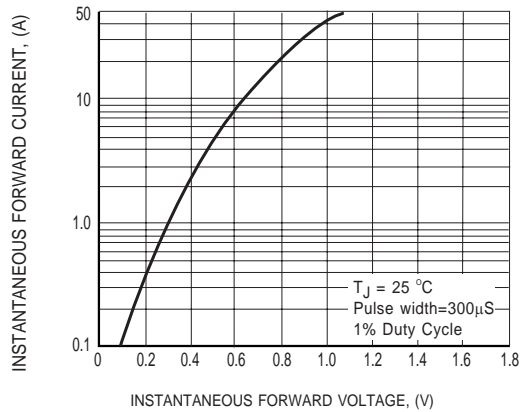


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

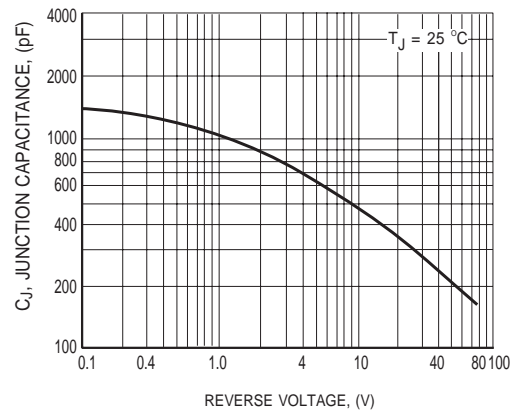


FIG.4 TYPICAL JUNCTION CAPACITANCE

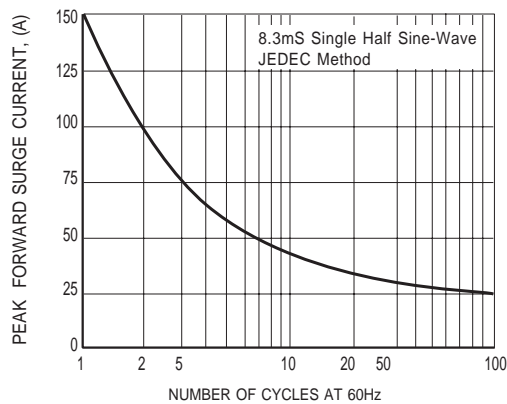


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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