



SCHOTTKY BARRIER SOLAR RECTIFIER

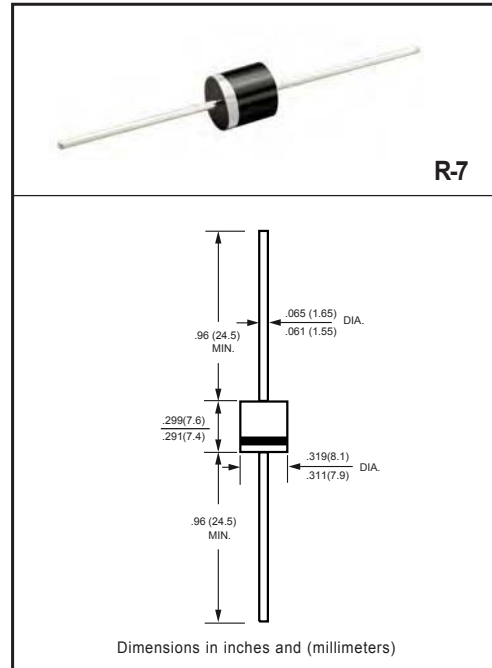
VOLTAGE 100 Volts CURRENT 15 Amperes

FEATURES

- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High surge capability
- * High reliability
- * Ideal for solar panel PV application such as By-Pass diode

MECHANICAL DATA

- * Case: R-7 axial-leaded, molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 1.897 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

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

RATINGS	SYMBOL	SPK15100-T-S-A01	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	Volts
Maximum RMS Voltage	V_{RMS}	70	Volts
Maximum DC Blocking Voltage	V_{DC}	100	Volts
Maximum DC Forward Current @ $T_L=125^{\circ}C$ (Note 1)	I_o	15	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300	Amps
Typical Thermal Resistance	$R_{\theta JA}$	25	$^{\circ}C/W$
	$R_{\theta JL}$	2.8	
Operating Temperature Range	T_J	175($T_J \leq 200^{\circ}C$ in Bypass Mode)	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to + 175	$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	SPK15100-T-S-A01	UNITS
Maximum Instantaneous Forward Voltage at 15 A DC	V_F	@ $T_A = 25^{\circ}C$.72
		@ $T_A = 140^{\circ}C$	$\leq .57$
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	@ $T_A = 25^{\circ}C$	10
		@ $T_A = 75^{\circ}C$	1.0

- NOTES : 1. Heat-sink mounted 10mm max from body
 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
 3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

RATING AND CHARACTERISTICS CURVES (SPK15100-T-S-A01)

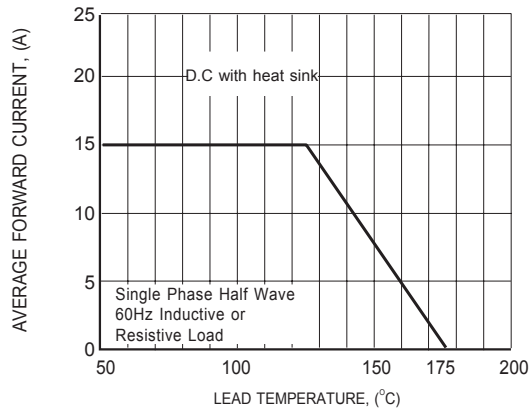


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

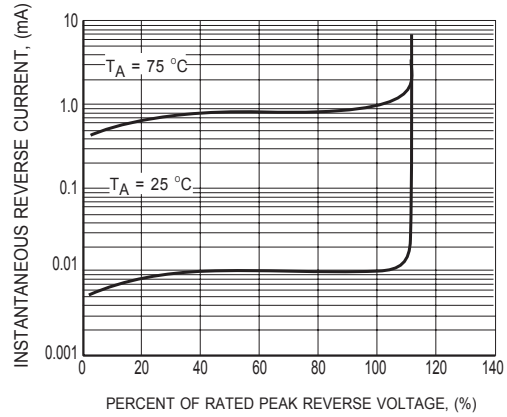


FIG.2 TYPICAL REVERSE CHARACTERISTICS

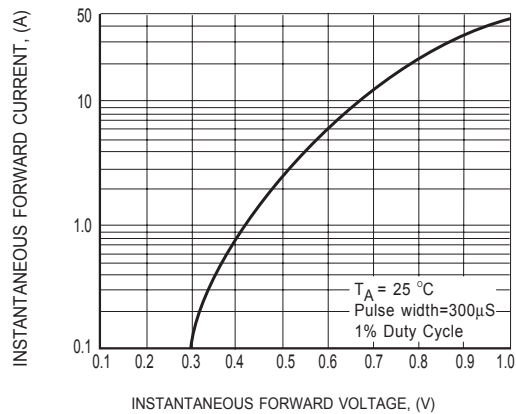


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

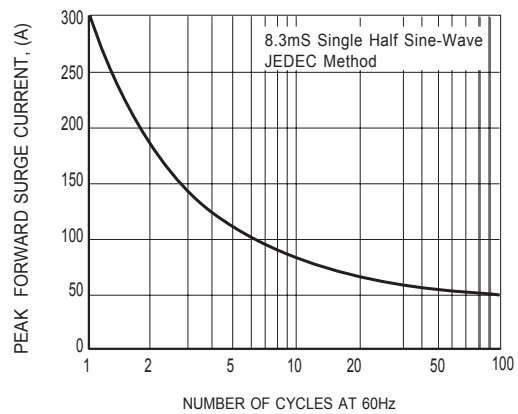


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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