

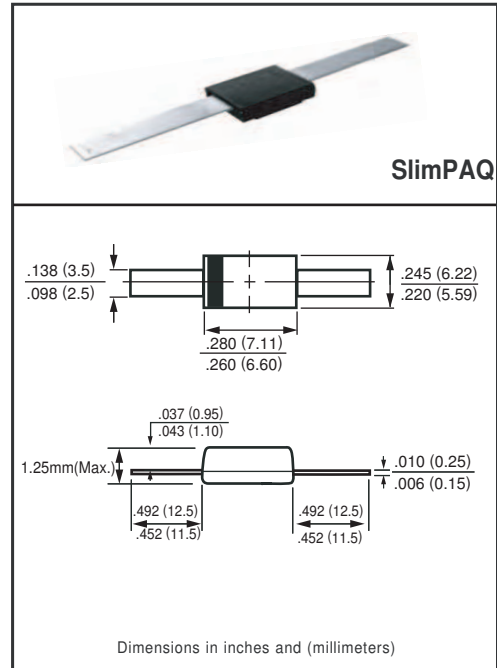
SCHOTTKY BARRIER SOLAR RECTIFIER
VOLTAGE 40 and 45 Volts CURRENT 12 Amperes

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: Slim PAQ
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

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

RATINGS	SYMBOL	SPKC1240F	SPKC1245F	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	40	45	Volts
Maximum RMS Voltage	V _{RMS}	28	31.5	Volts
Maximum DC Blocking Voltage	V _{DC}	40	45	Volts
Maximum DC Forward Current @T _L =125°C(Note 1)	I _O	12		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	300		Amps
Typical Current Square Time	I ² T	373.3		A ² S
Typical Thermal Resistance	R _{θJC}	7.6		°C/W
	R _{θJA}	15.0		
	R _{θJL}	3.8		
Operating Temperature Range	T _J	175(T _J ≤ 200C in Bypass Mode)		°C
Storage Temperature Range	T _{STG}	-55 to + 175		°C

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

CHARACTERISTICS	SYMBOL	SPKC1240F	SPKC1245F	UNITS
Maximum Instantaneous Forward Voltage at 12 A DC	V _F	@T _A = 25°C	.55	Volts
		@T _A = 75°C	.47	
Maximum Average Reverse Current at Rated DC Blocking Voltage	I _R	@T _A = 25°C	100	µA
		@T _A = 75°C	2.5	mA

NOTES : 1. Heat-sink mounted 10mm max from body
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2010-04
REV: A

RATING AND CHARACTERISTICS CURVES (SPKC1240F SPKC1245F)

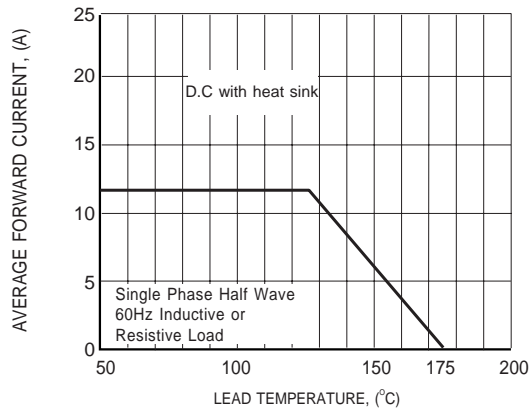


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

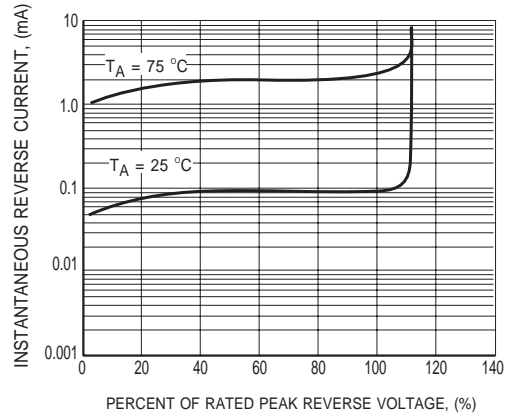


FIG.2 TYPICAL REVERSE CHARACTERISTICS

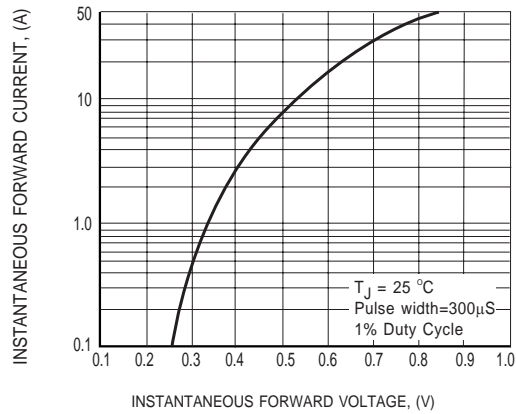


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

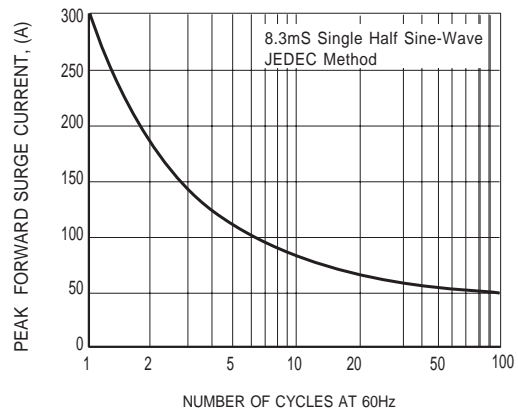
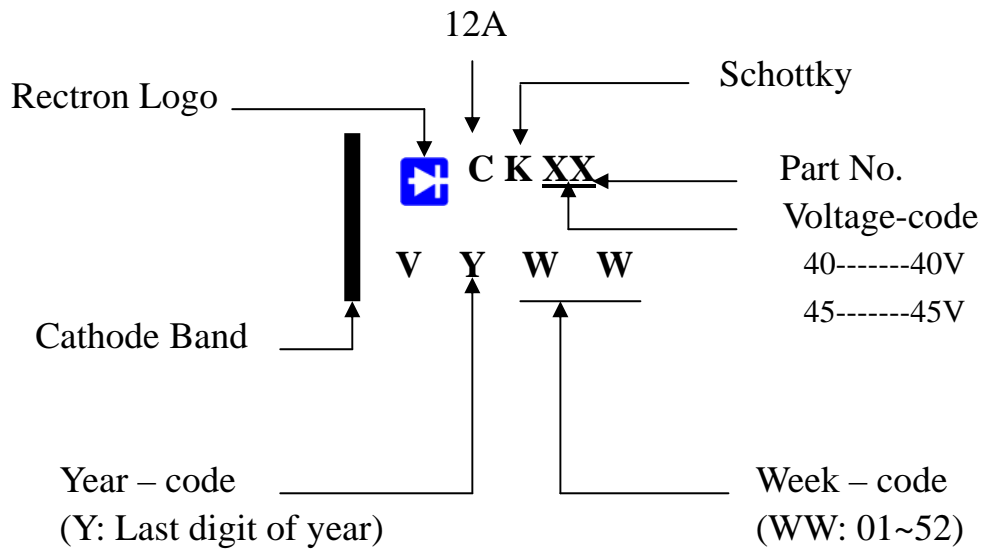


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description



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