RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

SPKC1240F
SPKC1245F

SCHOTTKY BARRIER SOLAR RECTIFIER

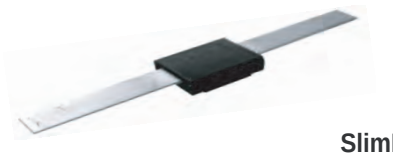
VOLTAGE 40 and 45 Volts CURRENT 12 Amperes

FEATURES

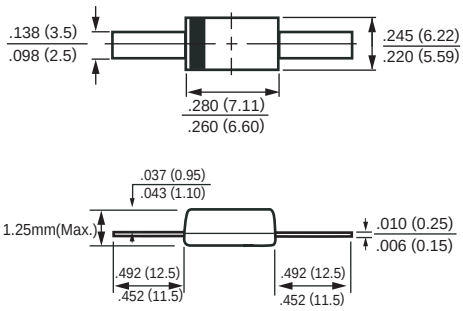
* Low switching noise
* Low forward voltage drop
* Low thermal resistance
* High current capability
* High surge capabitity
* High reliability
* Ideal for solar panel PV application such as By-Pass diode

MECHANICAL DATA

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



SlimPAQ



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

MAXIMUM RATINGS (@ T_A=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^2T	373.3		A^2S
Typical Thermal Resistance	$R_{\theta JC}$	7.6		°C/W
	$R_{\theta JA}$	15.0		
	$R_{\theta JL}$	3.8		
Operating Temperature Range	T_J	175(Tj≤200C in Bypass Mode)		°C
Storage Temperature Range	T_{STG}	-55 to + 175		°C

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

CHARACTERISTICS		SYMBOL	SPKC1240F	SPKC1245F	UNITS
Maximum Instantaneous Forward Voltage at 12 A DC	@T_A = 25°C	V_F	.55		Volts
	@T_A = 75°C		.47		
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	100		uA
	@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)

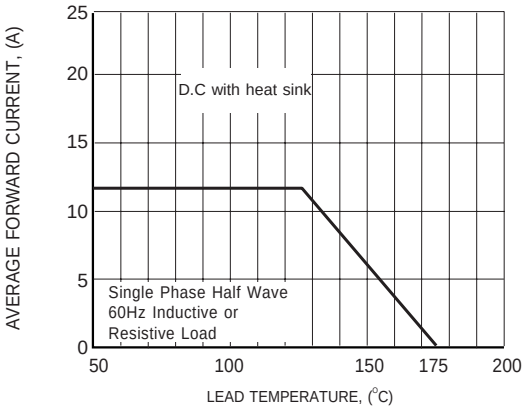


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

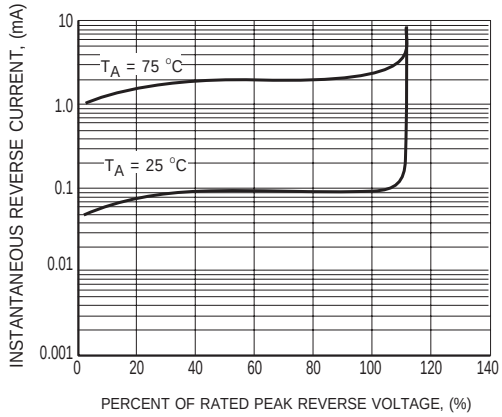


FIG.2 TYPICAL REVERSE CHARACTERISTICS

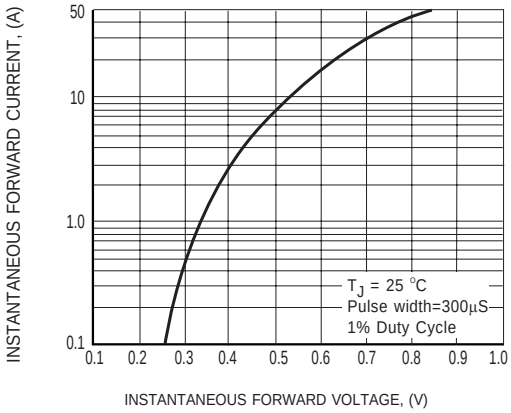


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

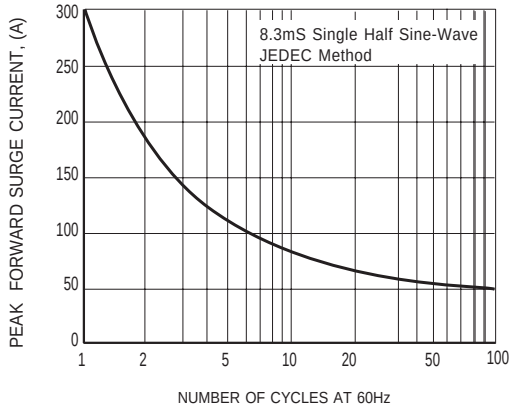
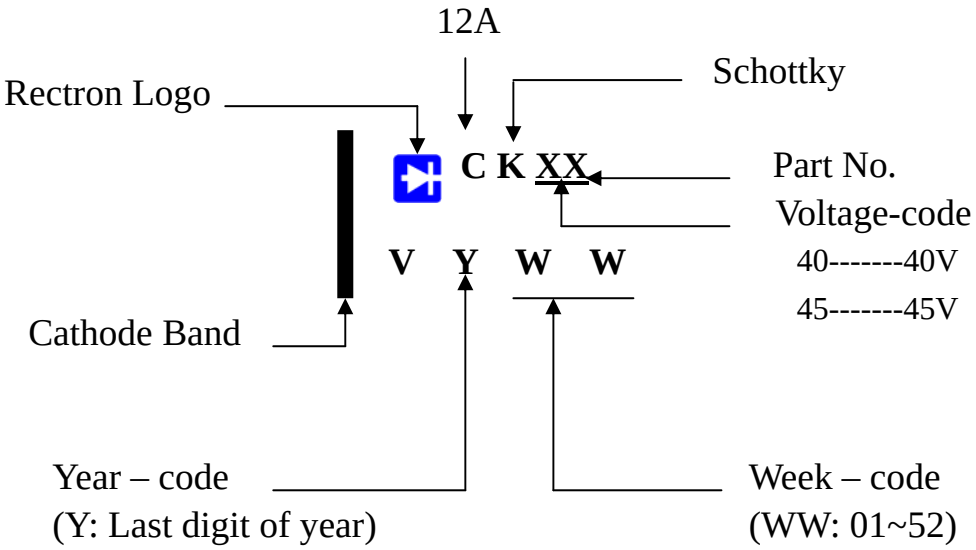


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description



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