

SPKC1245FL

SCHOTTKY BARRIER SOLAR RECTIFIER

VOLTAGE 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 bypass diode

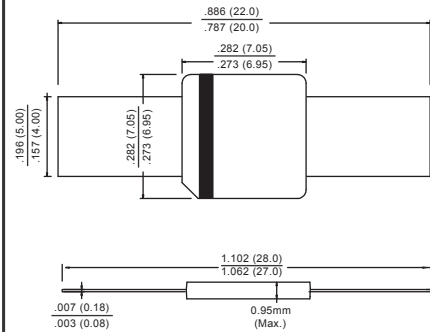
MECHANICAL DATA

- * Case: ThinPAQ
- * 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.

ThinPAQ



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	SPKC1245FL	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	Volts
Maximum RMS Voltage	V_{RMS}	31.5	Volts
Maximum DC Blocking Voltage	V_{DC}	45	Volts
Maximum DC Forward Current @ $T_L=125^{\circ}C$ (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
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	SPKC1245FL	UNITS
Maximum Instantaneous Forward Voltage at 12 A DC	V_F	.55	Volts
		.47	
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	100	μA
		2.5	mA

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.

2011-06
REV: O

RATING AND CHARACTERISTICS CURVES (SPKC1245FL)

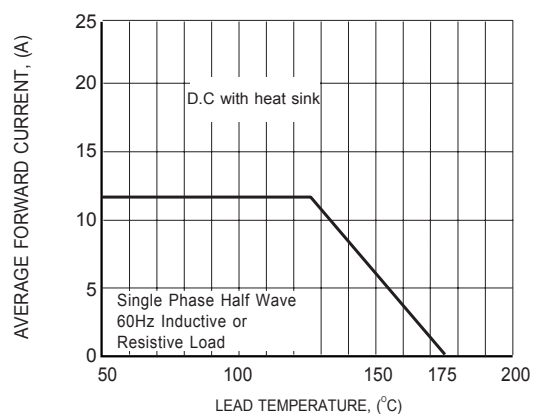


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

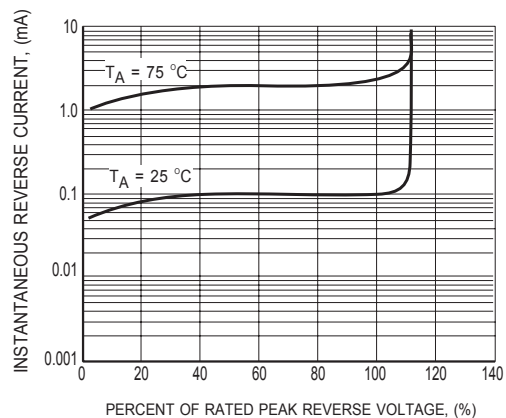


FIG.2 TYPICAL REVERSE CHARACTERISTICS

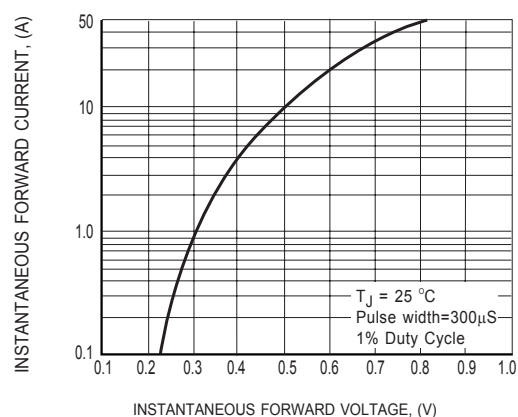


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

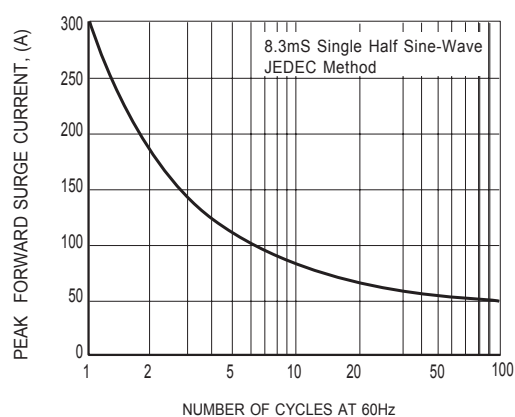
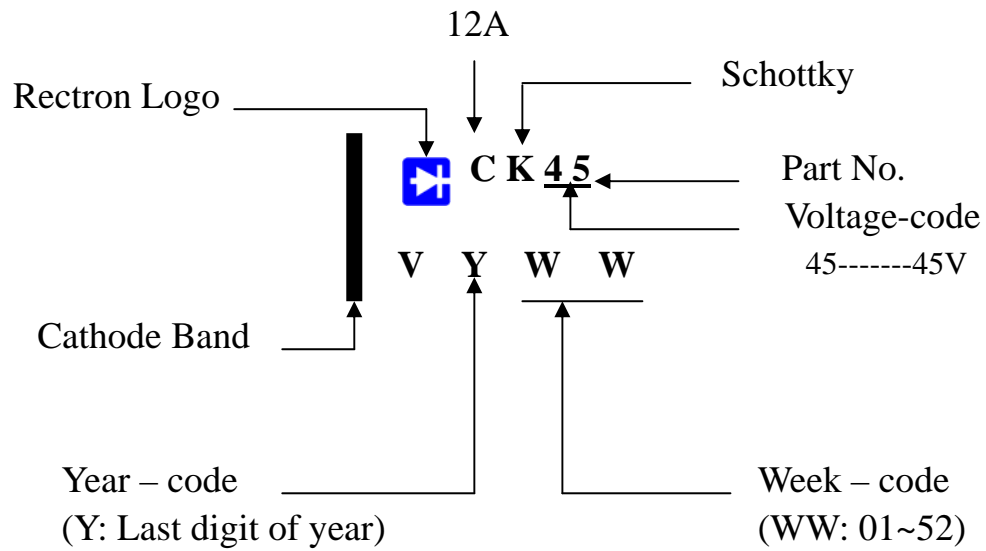
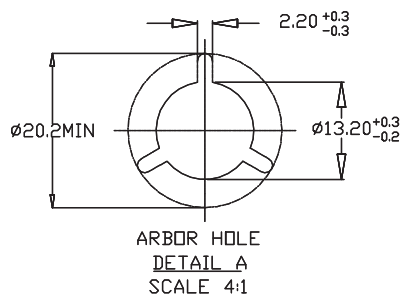
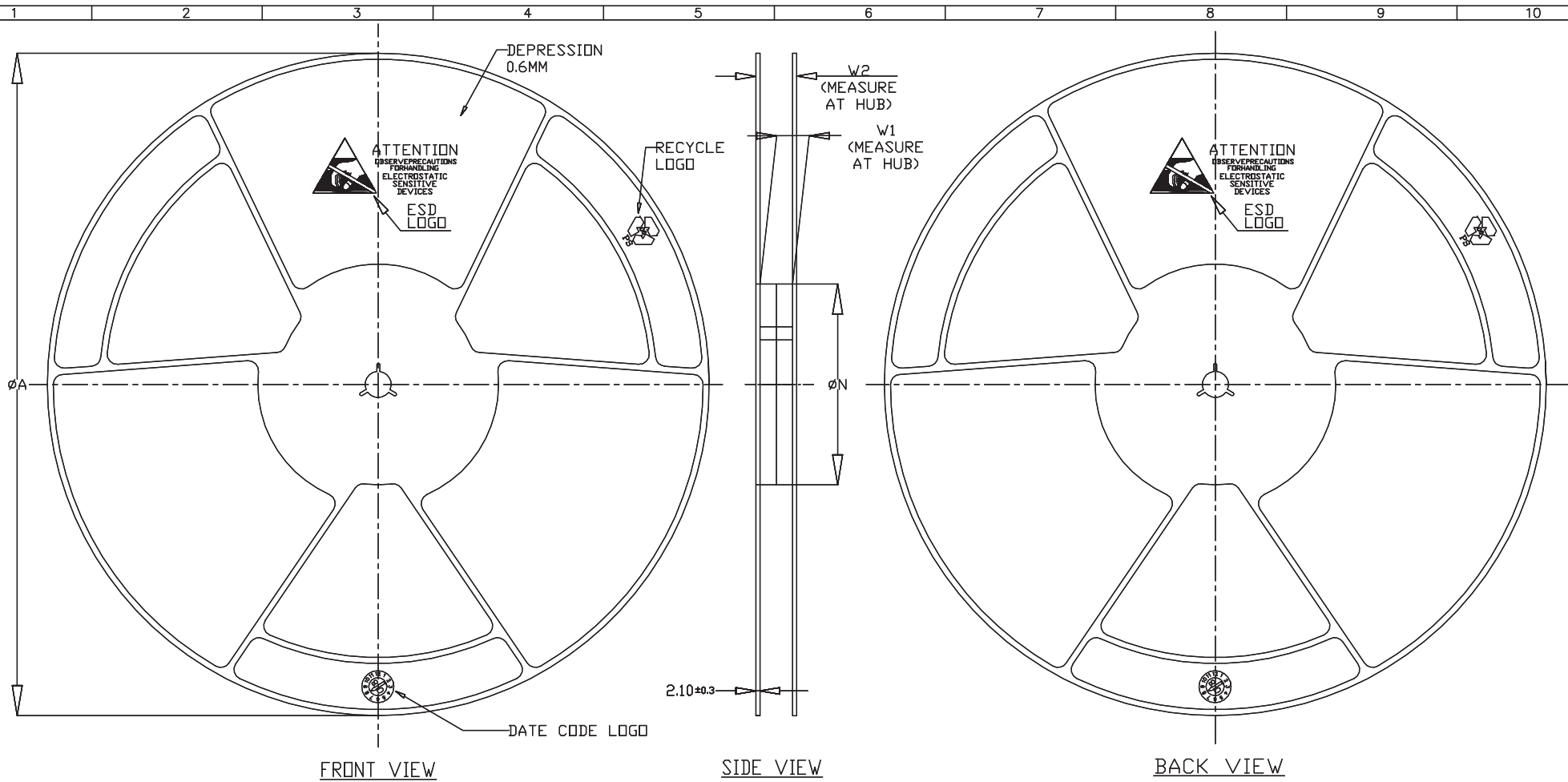


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description





PRODUCT SPECIFICATIONS				
TAPE WIDTH	A ± 0.2	N ± 0.2	W1 ± 0.2	W2 (MAX)
44MM	330	100	44.4	51.4

NOTE:
1. PRODUCT DRAWING ONLY

TITLE : 13X4 WELDED REEL				
S.R :	--	TOOL NO :	--	--
SCALE :	NTS	SHRINKAGE :	0.45%	TOLERANCE :
REV. :	001	MATERIAL :	PS	X.X ± 0.25
UNIT :	MM	WARPAGE :	--	X.XX ± 0.13
SHT :	1/1	NAME :	DATE :	ANGLE :
DRAWN	ZATY	070109	X	± 30°
CHECK	KC LEE	070109	X.X	± 15°



DWG-REF.	REV.	P	X	X
42WE0070	A			

REEL TAPING SPECIFICATIONS

Unit: mm

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