



SCHOTTKY BARRIER SOLAR RECTIFIER

VOLTAGE 45 Volts CURRENT 12 Amperes

FEATURES

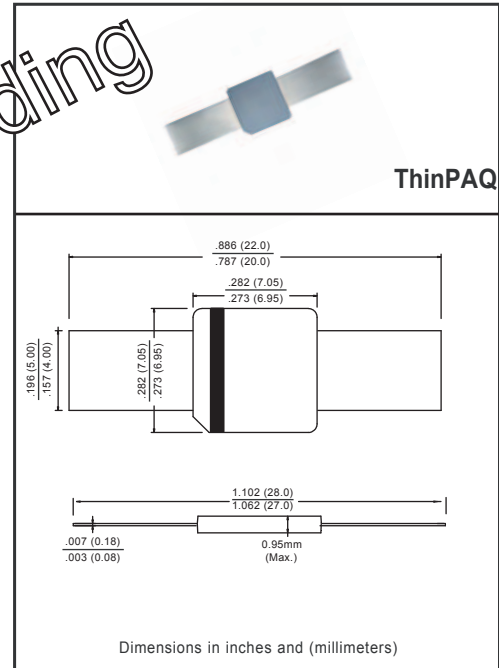
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High surge capability
- * High reliability
- * Ideal for solar panel PV application such as bypass diode

MECHANICAL DATA

- * Case: ThinPAQ
- * Epoxy: Device has UL gamma classification 94V-0
- * 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	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 ² S
Operating Temperature Range	T_J	175($T_j \leq 200C$ in Bypass Mode)	°C
Storage Temperature Range	T_{STG}	-55 to + 175	°C

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

CHARACTERISTICS	SYMBOL	SPKC1245FL	UNITS
Maximum Instantaneous Forward Voltage at 12 A DC	@ $T_A = 25^\circ C$.55	Volts
	@ $T_A = 75^\circ C$.47	
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ C$	100	uA
	@ $T_A = 75^\circ C$	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: 0

RATING AND CHARACTERISTICS CURVES (SPKC1245FL)

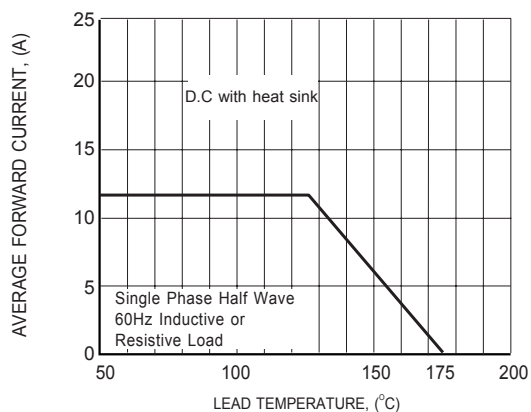


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

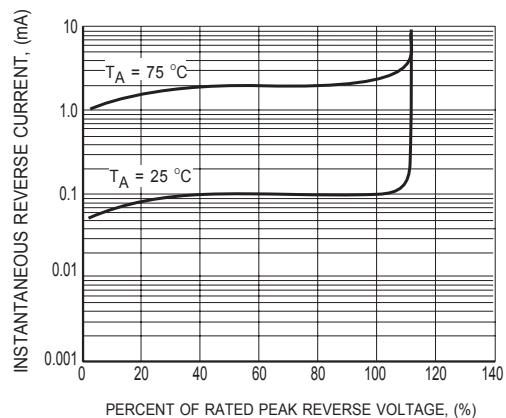


FIG.2 TYPICAL REVERSE CHARACTERISTICS

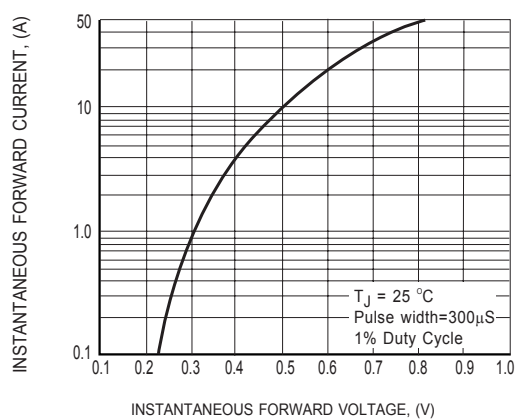


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

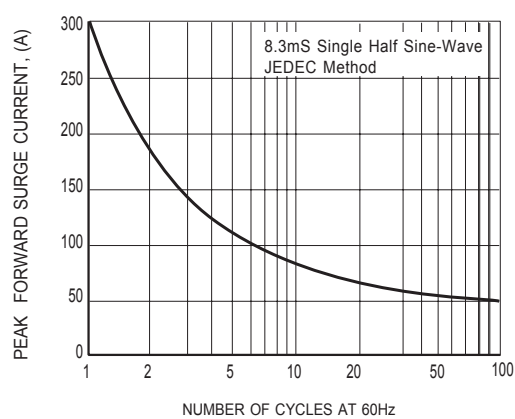
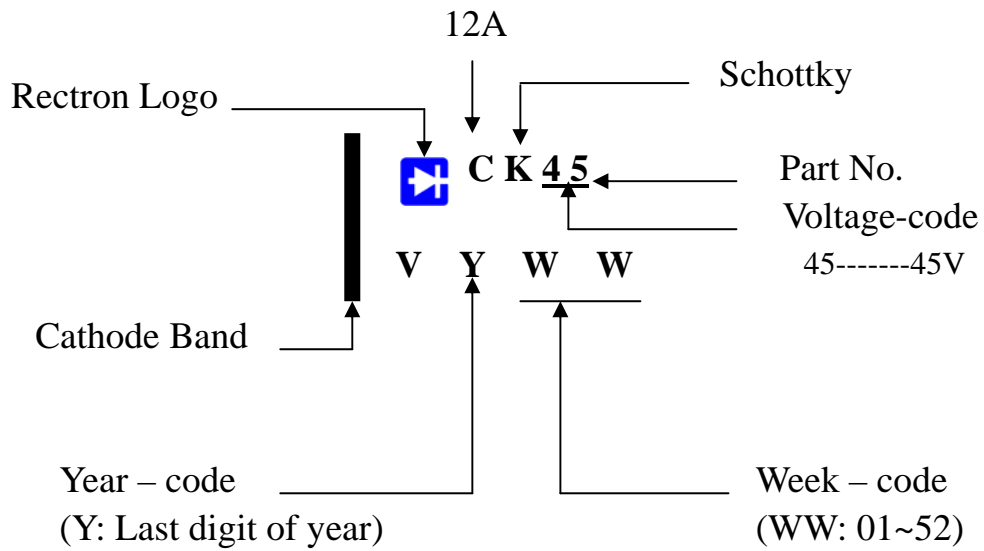
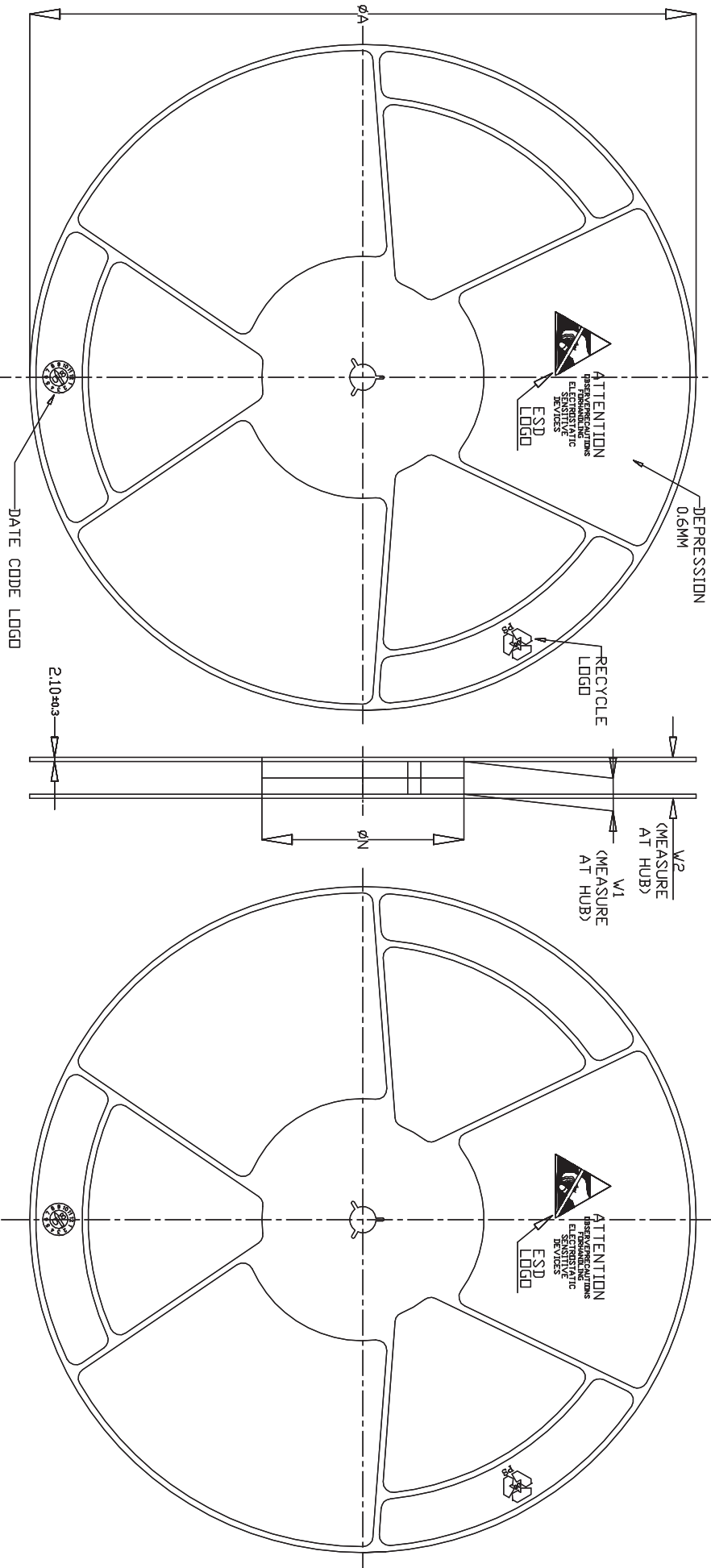


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

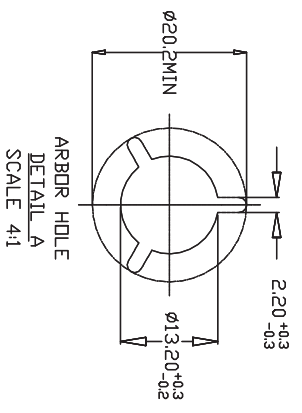
Marking Description





PRODUCT SPECIFICATIONS

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



NOTE:
1. PRODUCT DRAWING ONLY

TITLE : 13X4 WELDED REEL

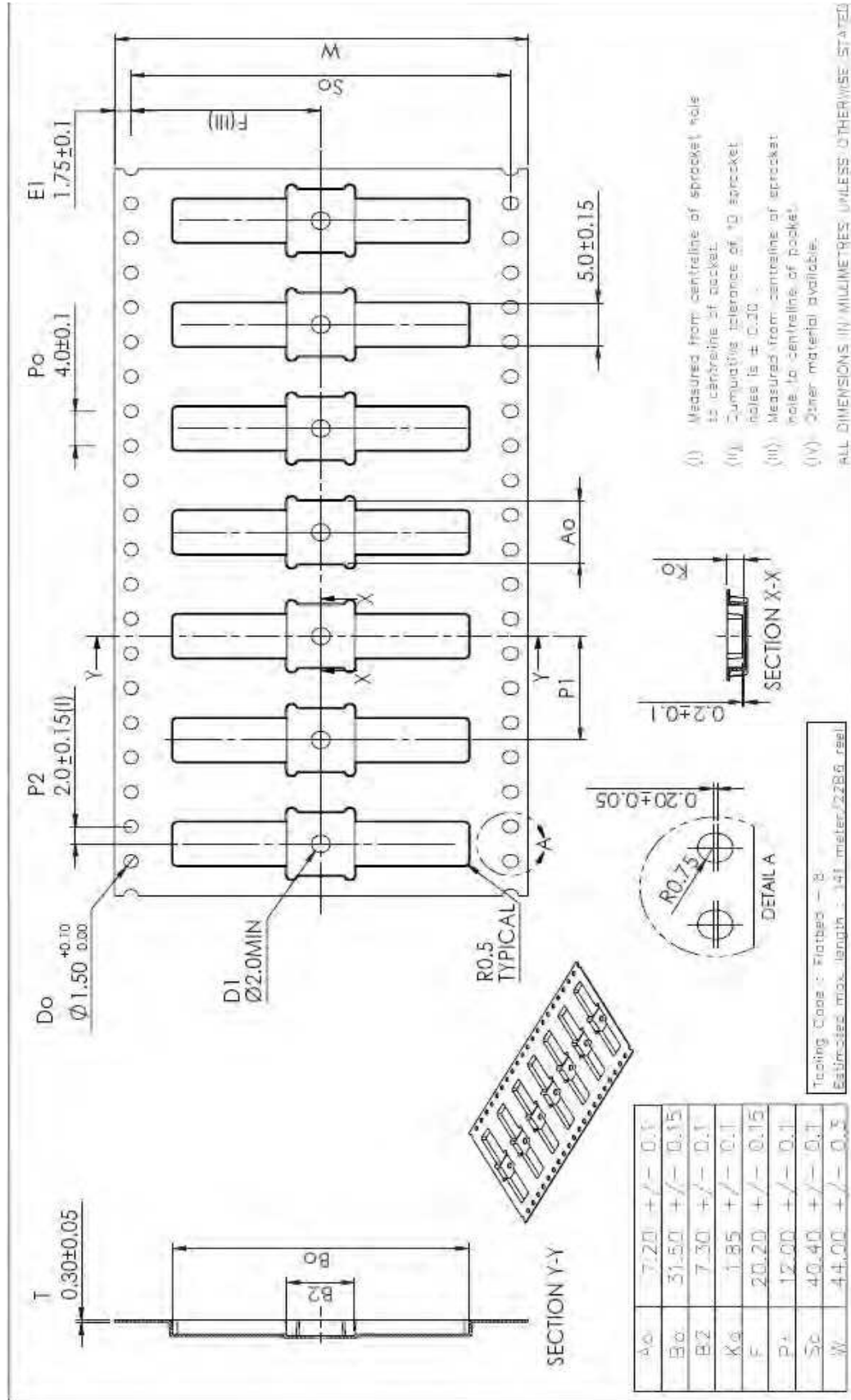
S.R :	---	TOOL NO :	---	TOLERANCE :	---
SCALE :	NTS	SHRINKAGE :	0.45%	PS	XX ±0.25
REV. :	000000	MATERIAL :	---	MM	XXX ±0.13
UNIT :	MM	WARPAGE :	---	DATE :	ANGLE : ±30°
SHT :	1/1	NAME :	---	07/01/09	XX ±15°
		DRAWN :	ZATT	07/01/09	XX ±15°
		CHECK :	KC LEE		

DWG-REF:	REV.
42WE0070	A



REEL TAPING SPECIFICATIONS

Unit: mm



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