



SCHOTTKY BARRIER SOLAR RECTIFIER

VOLTAGE 45 Volts CURRENT 12 Amperes

FEATURES

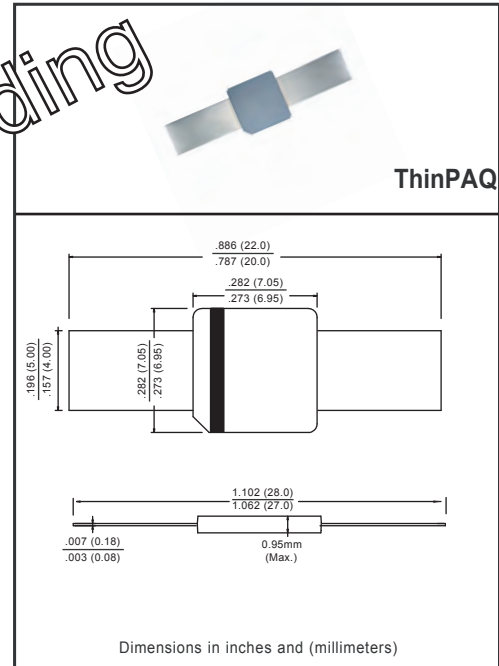
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High surge capability
- * High reliability
- * Ideal for solar panel PV application such as bypass diode

MECHANICAL DATA

- * Case: ThinPAQ
- * Epoxy: Device has UL flammability classification 94V-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^2S
Operating Temperature Range	T_J	175($T_j \leq 200C$ 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	@ $T_A = 25^{\circ}C$.55	Volts
	@ $T_A = 75^{\circ}C$.47	
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^{\circ}C$	100	μA
	@ $T_A = 75^{\circ}C$	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.

RATING AND CHARACTERISTICS CURVES (SPKC1245FL)

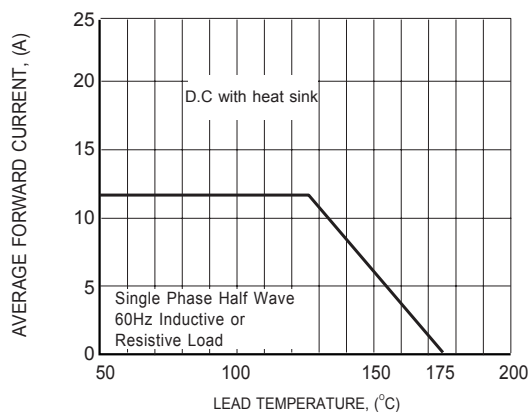


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

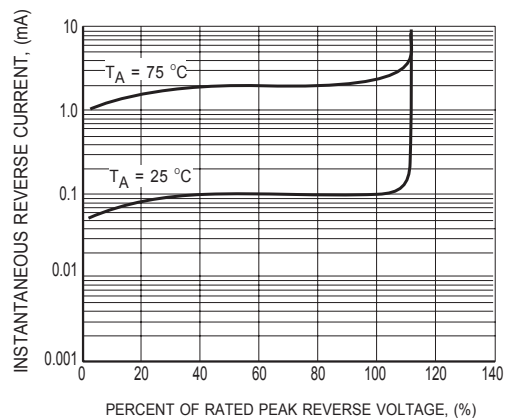


FIG.2 TYPICAL REVERSE CHARACTERISTICS

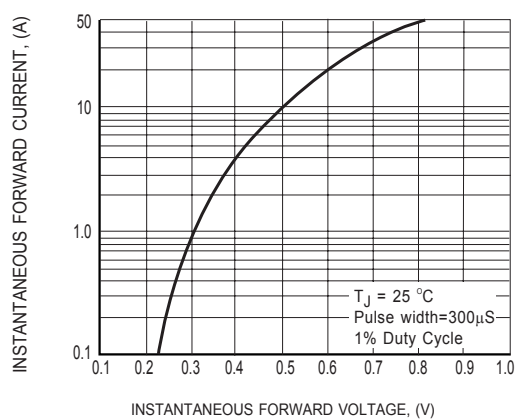


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

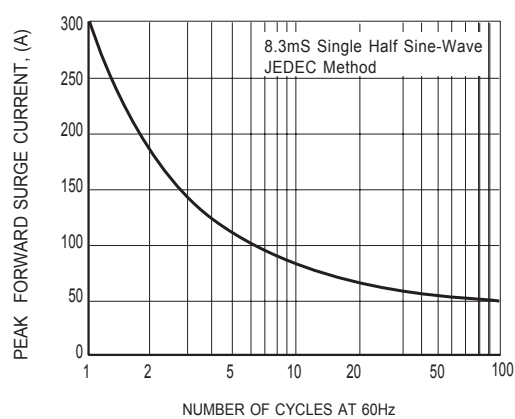
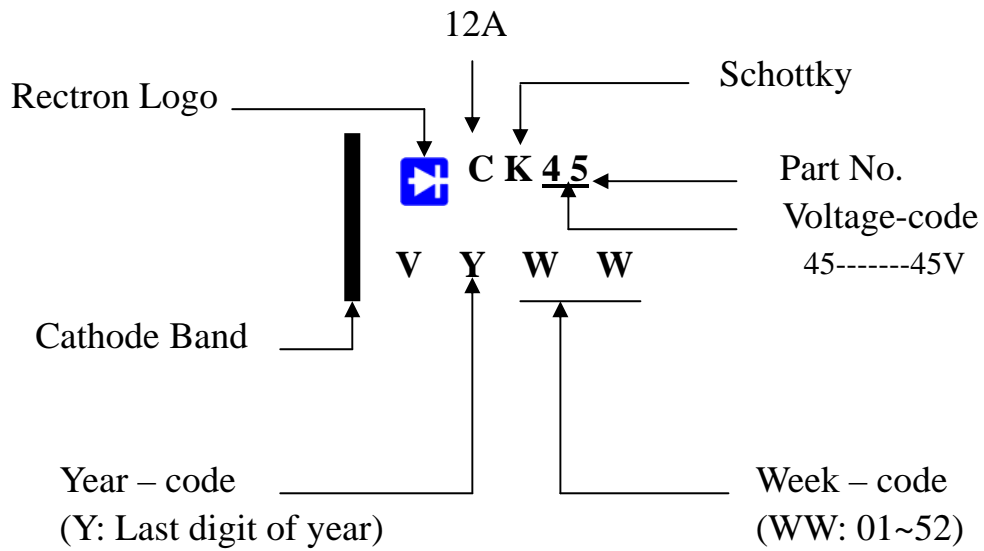
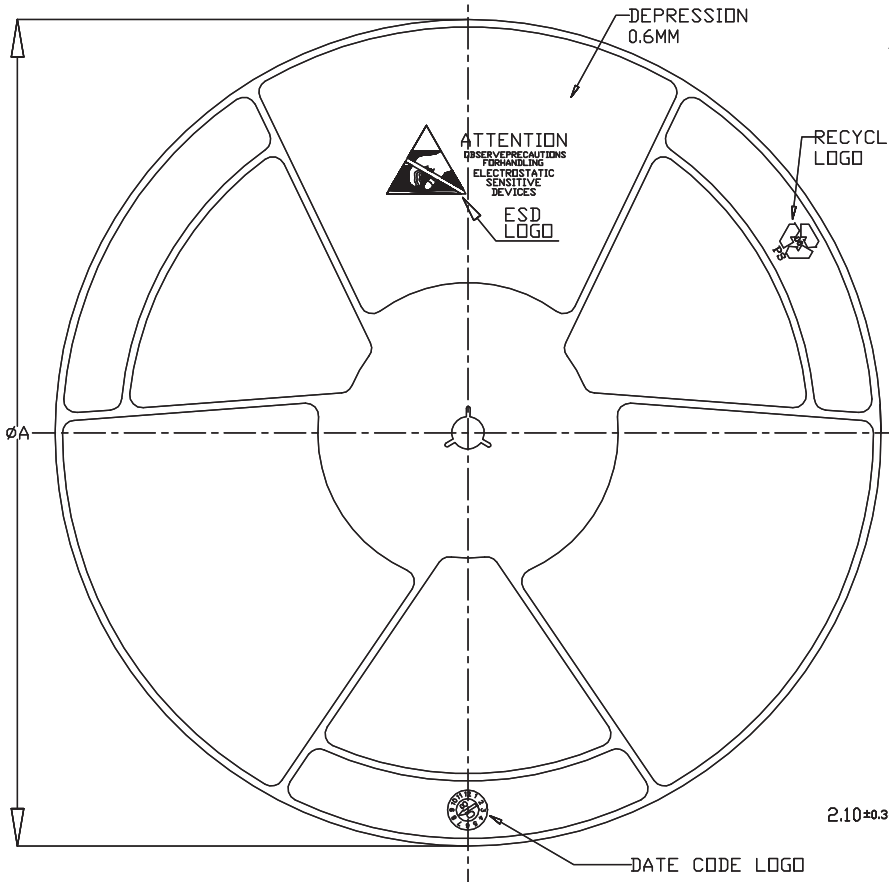


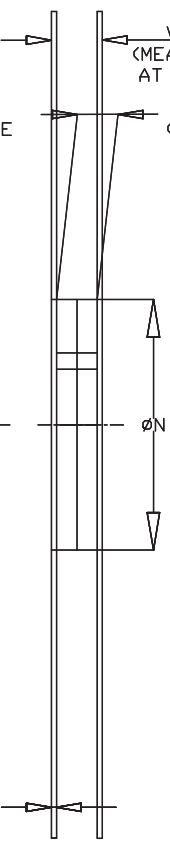
FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description

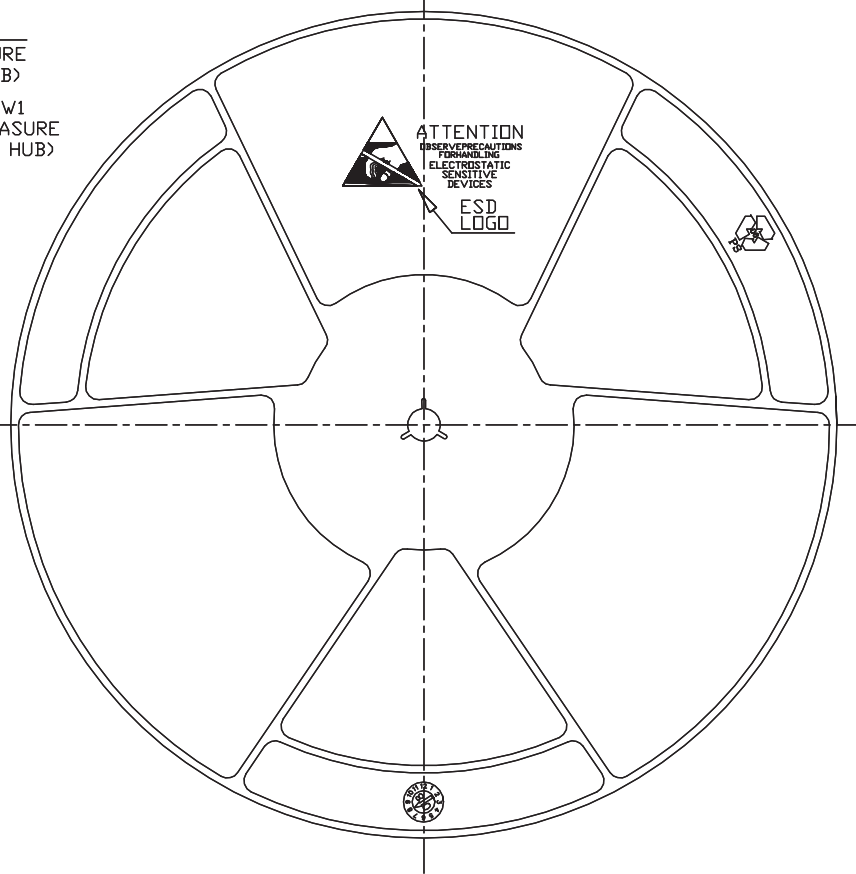




FRONT VIEW

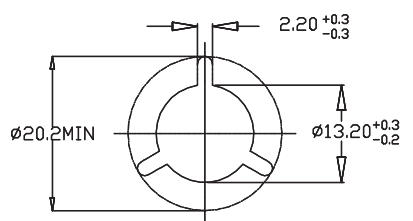


SIDE VIEW



BACK VIEW

PRODUCT SPECIFICATIONS				
TAPE WIDTH	A ^{±0.2}	N ^{±0.2}	W1 ^{±0.3}	W2 (MAX)
44MM	330	100	44.4	51.4



ARBOR HOLE
DETAIL A
SCALE 4:1

NOTE:
1. PRODUCT DRAWING ONLY

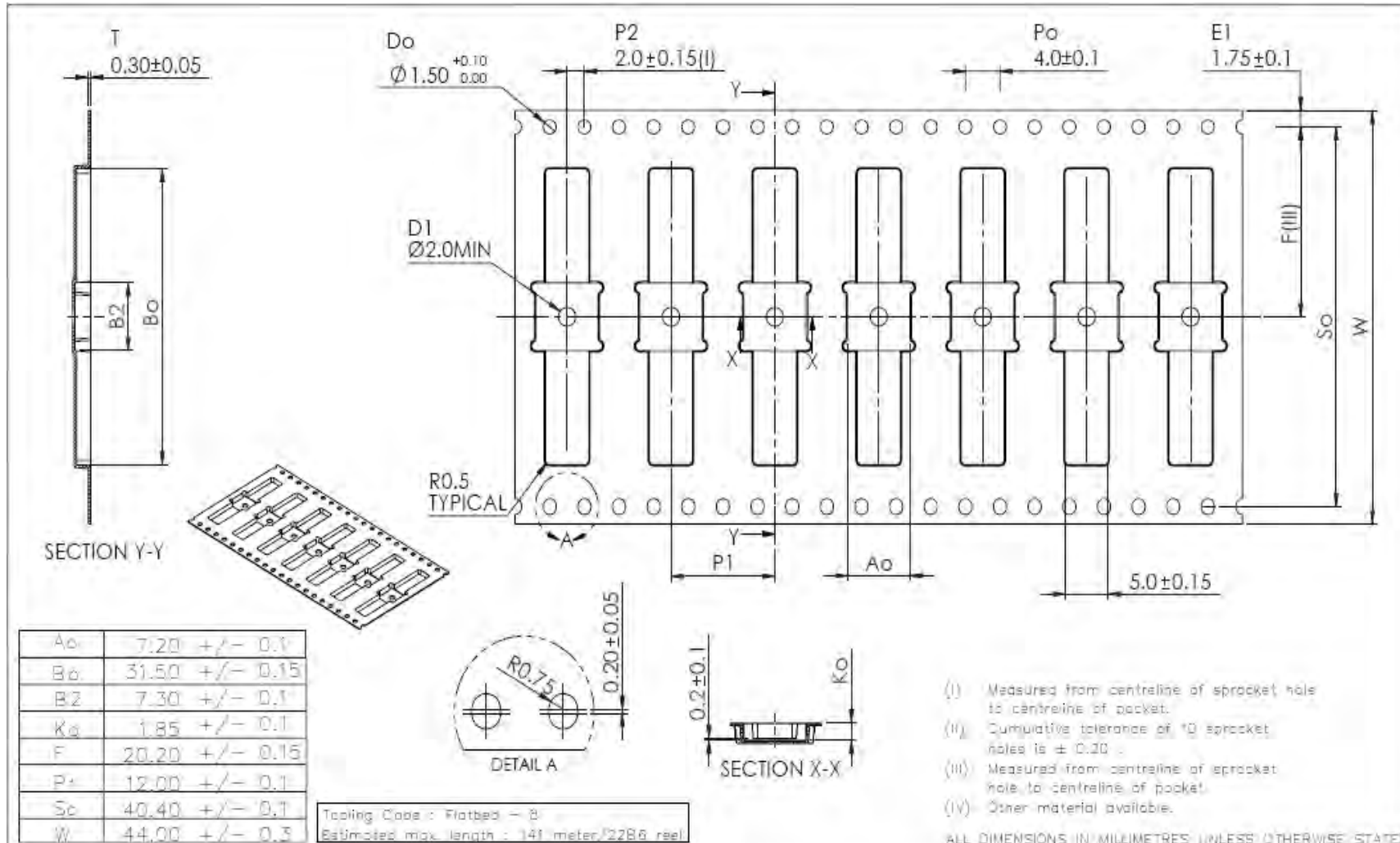
TITLE : 13X4 WELDED REEL			
S.R :	--	TOOL NO :	--
SCALE :	NTS	SHRINKAGE :	0.45%
REV :	05/27/20	MATERIAL :	PS X.X ±0.25
UNIT :	MM	WARPAGE :	-- X.XX ±0.13
SHT :	1/1	NAME :	DATE :
			ANGLE :
		DRAWN	ZATY
		CHECK	KC LEE
			070109 X ±30°
			070109 X.X ±15°



DWG-REF.	REV.	
42WE0070	A	P

REEL TAPING SPECIFICATIONS

Unit: mm



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