

**SCHOTTKY BARRIER RECTIFIER**

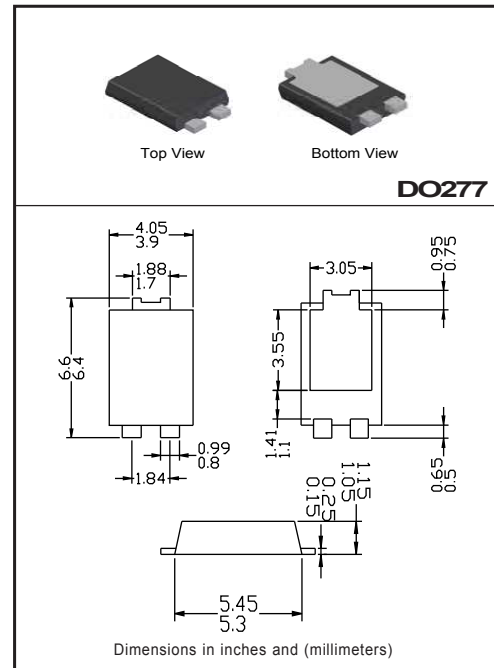
**VOLTAGE RANGE 100 Volts CURRENT 8.0 Amperes**

**FEATURES**

- \* Low switching noise
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

- \* Case: DO277 molded plastic
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Halogen free



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

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

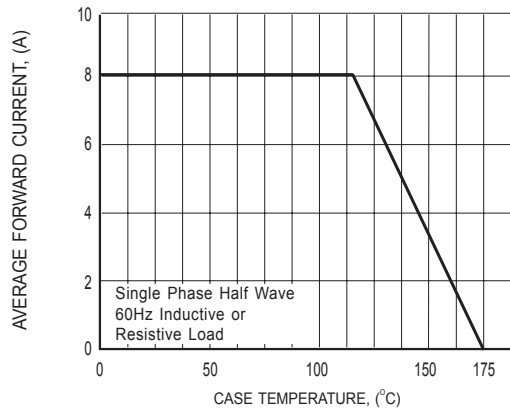
RATINGS	SYMBOL	SR8100P	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	Volts
Maximum RMS Voltage	$V_{RMS}$	70	Volts
Maximum DC Blocking Voltage	$V_{DC}$	100	Volts
Maximum Average Forward Rectified Current at $T_C=115^{\circ}C$	$I_O$	8.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150	Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.5	$^{\circ}C/W$
	$R_{\theta JA}$	60	
Typical Junction Capacitance (Note 3)	$C_J$	450	pF
Operating Temperature Range	$T_J$	175	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to + 175	$^{\circ}C$

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

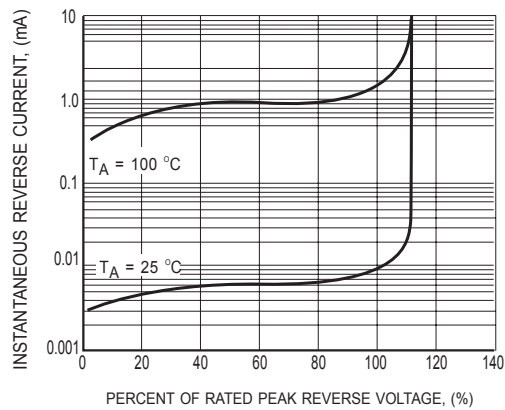
CHARACTERISTICS	SYMBOL	SR8100P	UNITS	
Maximum Instantaneous Forward Voltage at 8.0A DC	$V_F$	.80	Volts	
Maximum Average Reverse Current at Rated DC Blocking Voltage	$I_R$	@ $T_A = 25^{\circ}C$	10	$\mu A$
		@ $T_A = 100^{\circ}C$	2.5	$\mu A$

- NOTES : 1. Thermal Resistance : Heat-sink mounted.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

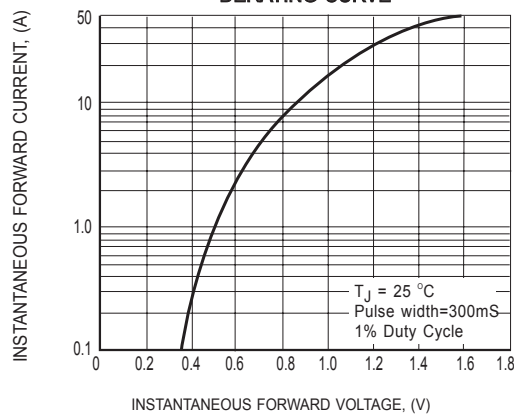
## RATING AND CHARACTERISTICS CURVES ( SR8100P )



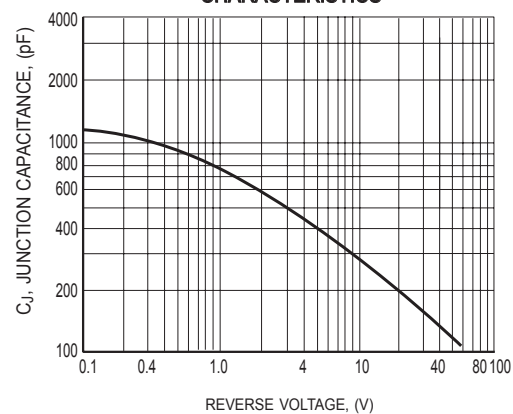
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



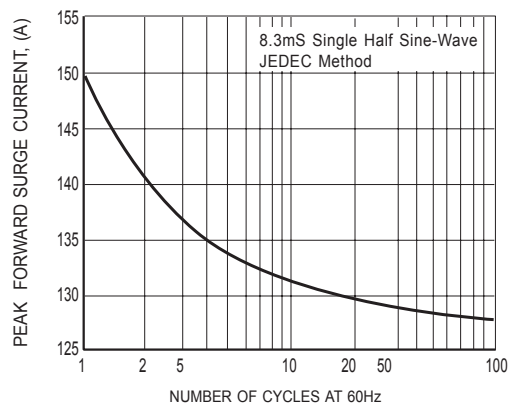
**FIG.2 TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



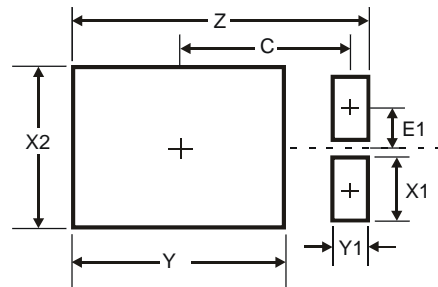
**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



## Recommendation of Mounting Pad Layout



Dimensions	Value (in mm)
Z	6.6
X1	1.4
X2	3.6
Y1	0.8
Y2	4.7
C	3.87
E1	0.9

Dimensions in millimeters

# REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES-FLAT MELF ( DO-277 )

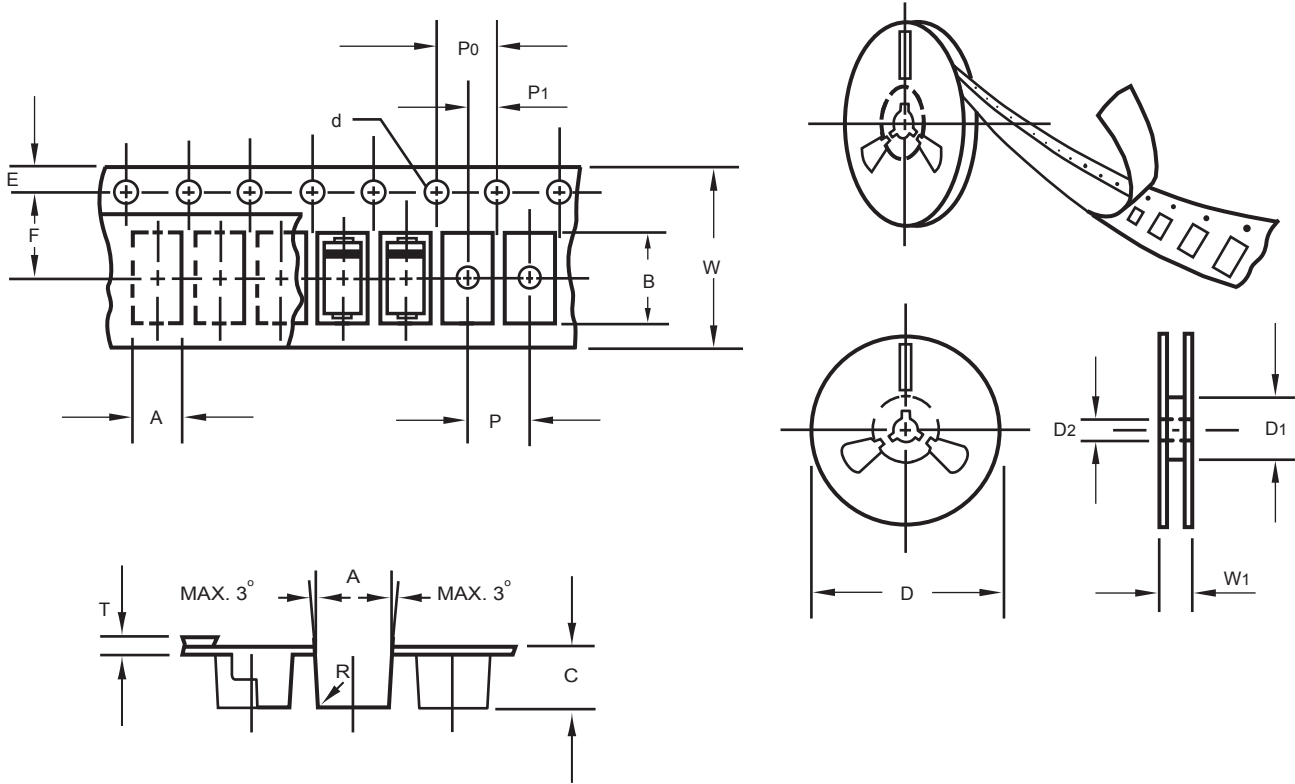
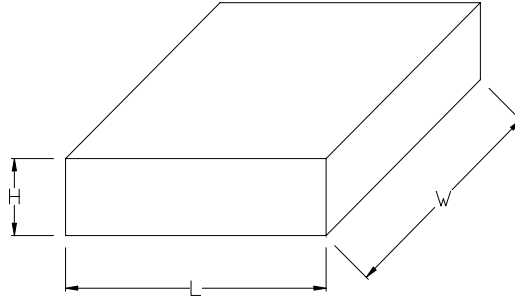


Fig.: Configuration of FLAT MELF TAPING  
(DO-277)

ITEM	SYMBOL	DO-277 mm(inch)	
Carrier width	A	5.45 ± 0.1 (0.179 ± 0.004)	
Carrier length	B	6.80 ± 0.1 (0.268 ± 0.004)	
Carrier depth	C	1.33 ± 0.1 (0.052 ± 0.004)	
Sprocket hole	d	1.5 ± 0.1 (0.059 ± 0.004)	
Reel outside diameter	D	178 ± 2.0 (7.0 ± 0.079)	
Reel inner diameter	D1	50 Min.	
Feed hole diameter	D2	13 ± 0.5 (0.512 ± 0.020)	
Strocket hole position	E	1.75 ± 0.1 (0.069 ± 0.004)	
Punch hole position	F	5.50 ± 0.05 (0.217 ± 0.002)	
Punch hole pitch	P	8.0 ± 0.1 (0.315 ± 0.004)	
Sprocket hole pitch	P0	4.0 ± 0.1 (0.157 ± 0.004)	
Embossment center	P1	2.00 ± 0.05 (0.079 ± 0.002)	
Total tape thickness	T	0.28 ± 0.02 (0.011 ± 0.001)	
Tape width	W	12.00 + 0.3 (0.472 + 0.012)	12.00 - 0.1 (0.472 - 0.004)
Reel width	W1	16.8 ± 2.0 (0.661 ± 0.079)	

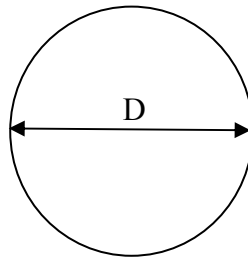
Note: 1.Devices are packed in accordance with EIA standard RS-481-A and specification given above.

1. BOX



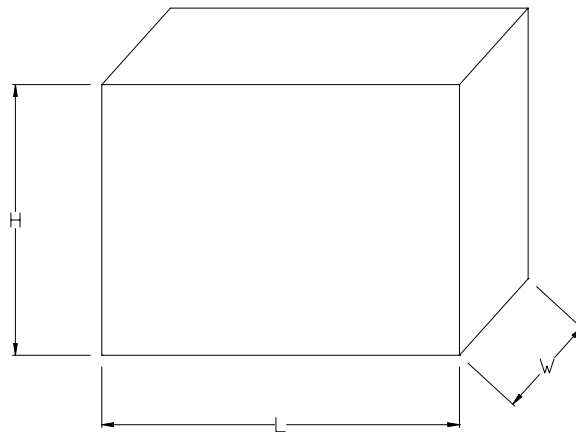
Packing Code	L (mm)	W (mm)	H (mm)
-T/W	338	338	40

2. REEL



Packing Code	D (mm)
-T/W	330

3. CARTON



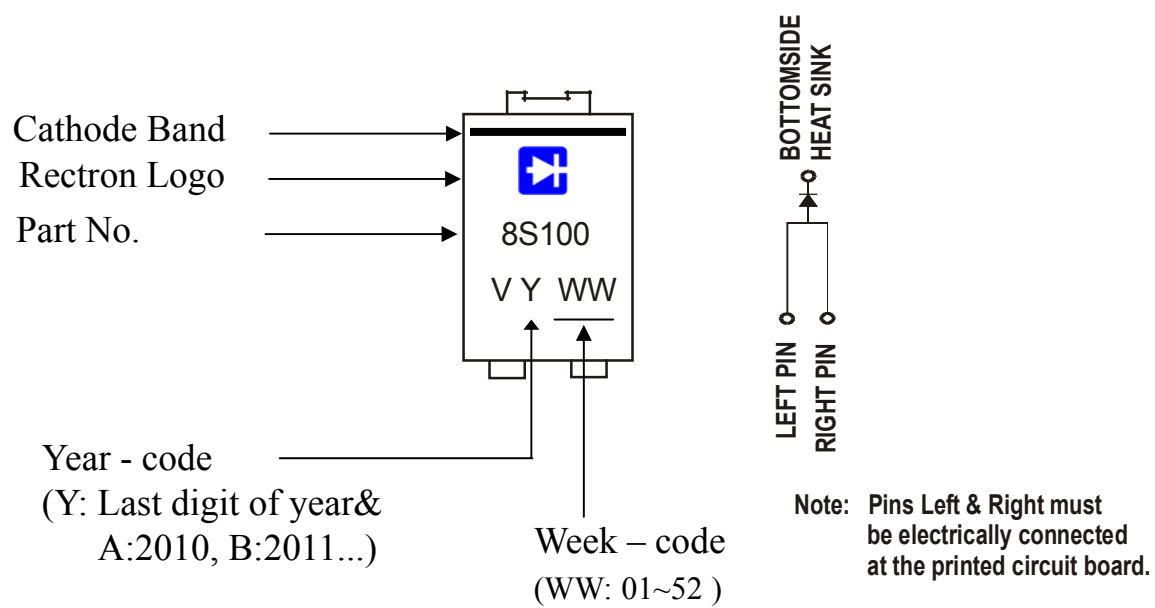
Packing Code	L (mm)	W (mm)	H (mm)
-T/W	360	355	360

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-277	-T/W	5,000	10,000	---	---	330	360*355*360	80,000	15.29

## Marking Description



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