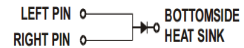
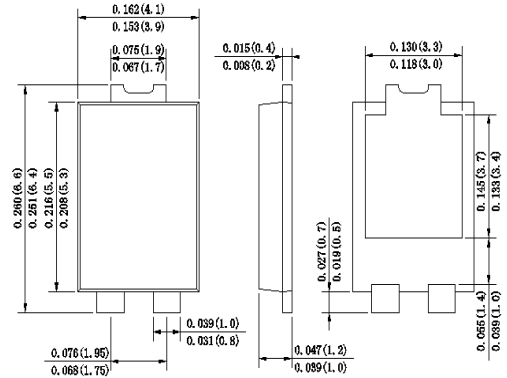


## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory
- ◆ Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief,ideal for automated placement
- ◆ Low forward voltage drop
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250 C/10 seconds at terminals

**TO-277**


Dimensions in inches and (millimeters)

### Mechanical Data

Case : JEDEC TO-277 Molded plastic body  
 Terminals :Solder plated, solderable per MIL-STD-750,Method 2026  
 Polarity : Polarity symbol marking on body  
 Mounting Position : Any  
 Weight : 0.003 ounce, 0.092 grams

### Maximum Ratings And Electrical Characteristics

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

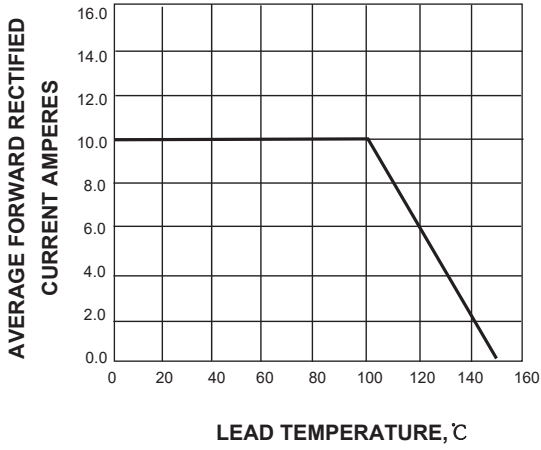
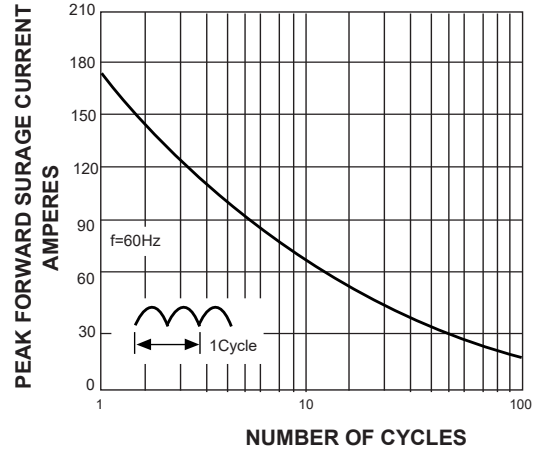
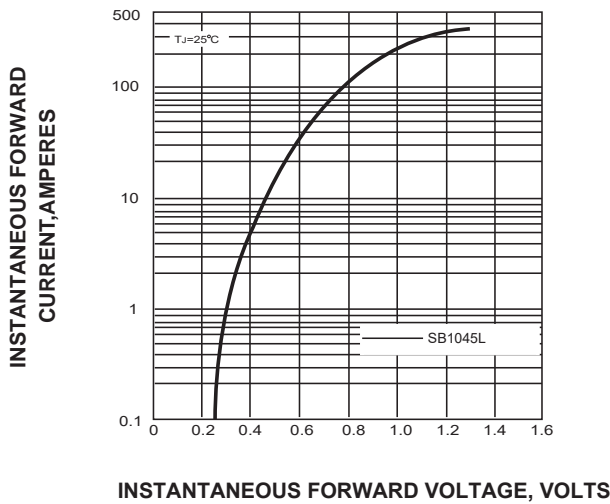
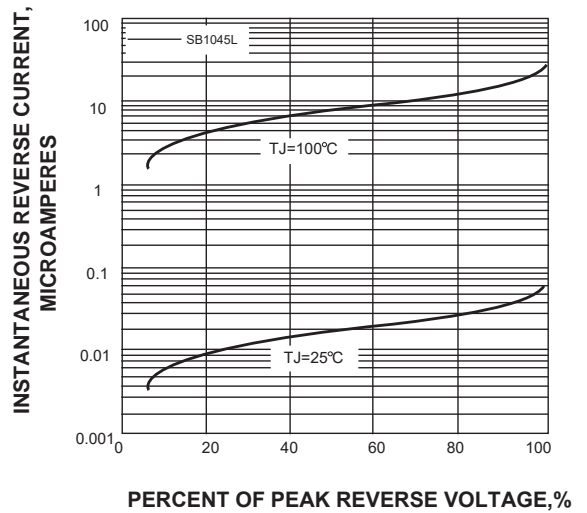
Parameter	SYMBOL	SB1045L	UNIT
Marking Code		MDD SB1045L	
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	V
Maximum DC blocking voltage	$V_{DC}$		
RMS Reverse voltage	$V_{RMS}$	31.5	V
Average Rectified Output Current	$I_{(O)}$	10	A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method)	$I_{FSM}$	175	A

Electrical Characteristics  $T_a=25^{\circ}C$  unless otherwise noted

Parameter	TestConditions	Symbol	Value		Unit
			Typ	Max	
Forward Voltage Drop	at 10A	$V_F$	-	0.55	V
Peak reverse curent at rated DC blocking voltage	$T_A=25^{\circ}C$	$I_R$	-	0.5	mA
	$T_A=125^{\circ}C$		-	50	mA
Typical thermal resistance		$R_{\theta JA}$	60.0		$^{\circ}C/W$
Operating junction temperature range		$T_J$	-55 to +150		$^{\circ}C$
Storage temperature range		$T_{STG}$	-55 to +150		$^{\circ}C$

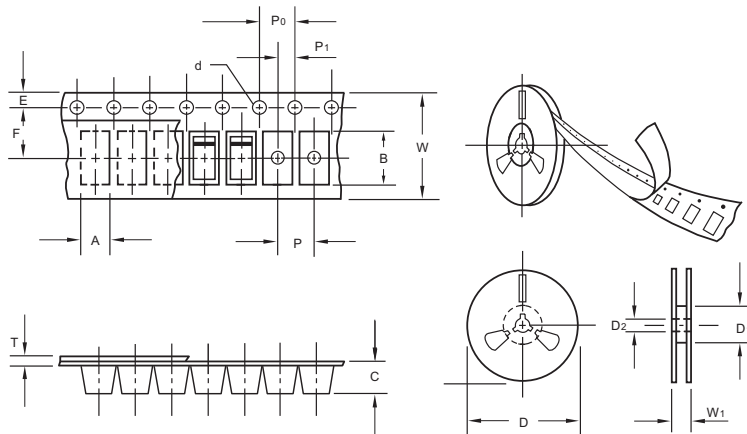
**Note:**1.The typical data above is for referenceonly.

## Ratings And Characteristic Curves

**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**

**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG**

**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**

**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**


The curve above is for reference only.

## Packing information



unit:mm

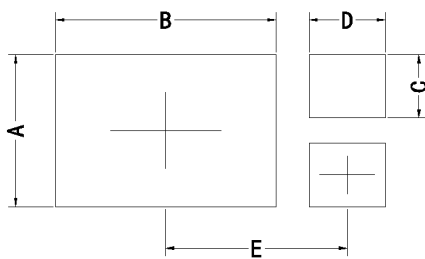
Item	Symbol	Tolerance	TO-277
Carrier width	A	0.1	4.45
Carrier length	B	0.1	7.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D <sub>1</sub>	min	50.0
Feed hole diameter	D <sub>2</sub>	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P <sub>0</sub>	0.1	4.00
Embossment center	P <sub>1</sub>	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	12.00
Reel width	W <sub>1</sub>	1.0	12.30

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

## Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
TO-277	13"	5,000	4.0	10,000	210*208*203	330	430*430*235	80,000	13.0

## Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	3.60	0.142
B	5.35	0.211
C	1.50	0.059
D	1.85	0.073
E	4.30	0.169