

**CURRENT** 3.0 Ampere  
**VOLTAGE RANG** 50 to 1000 Volts

## TMBF302 THRU TMBF310

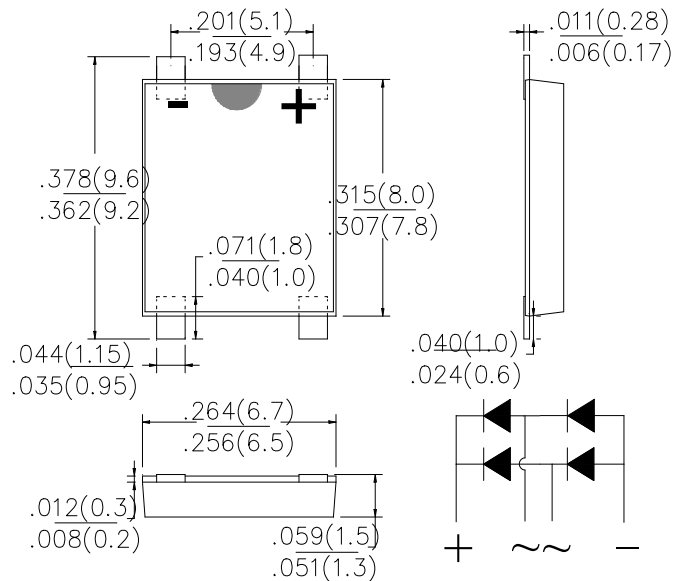
### FEATURE

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- Glass passivated junction.
- Ideal for printed circuit board.
- Reliable low cost construction utilizing molded plastic technique.
- High surge current capability.
- High temperature soldering guaranteed: 260°C/10 seconds at terminals.

### MECHANICAL DATA

- Case Material: “Green” Molding compound, UL flammability classification rating 94V-0, “Halogen free”
- Moisture sensitivity level: level 2a, per J-STD-020
- Polarity: Polarity as marked on the body
- Weight: 0.204g (approximately)

### TMBF



Dimensions in inches and (millimeters)

### 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 derate current by 20%.

Catalog Number	SYMBOLS	TMBF302	TMBF304	TMBF306	TMBF308	TMBF310	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	1000	VOLTS
Maximum Average Forward Rectified Current @ $T_C = 90^\circ C$	$I_{F(AV)}$	3.0					Amps
Peak Forward Surge Current @ 8.3ms single half sine-wave @ 1.0ms	$I_{FSM}$	95					Amps
Maximum Forward Voltage @ $T_J = 25^\circ C$ @ 1.5A DC	$V_F$	0.96					Volts
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ C$ $T_A = 125^\circ C$	$I_R$	5					$\mu A$
Typical junction Capacitance per element (Note 1)	$C_J$	40					pF
$I^2t$ Rating for fusing (1ms < t < 8.3ms)	$I^2t$	33.6					$I^2t$
Typical thermal resistance(NOTE 2)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	10 15 55					$^\circ C/W$
Operating temperature range	$T_J$	-55 to +150					$^\circ C$
storage temperature range	$T_{STG}$	-55 to +150					$^\circ C$

NOTES:(1). Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 (2) .Thermal Resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft<sup>2</sup> 20x20 mm copper pad per pin.  
 (3).The typical data above is for reference only(典型值仅供参考).

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**Rating and Characteristic Curves** (TA=25°C Unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

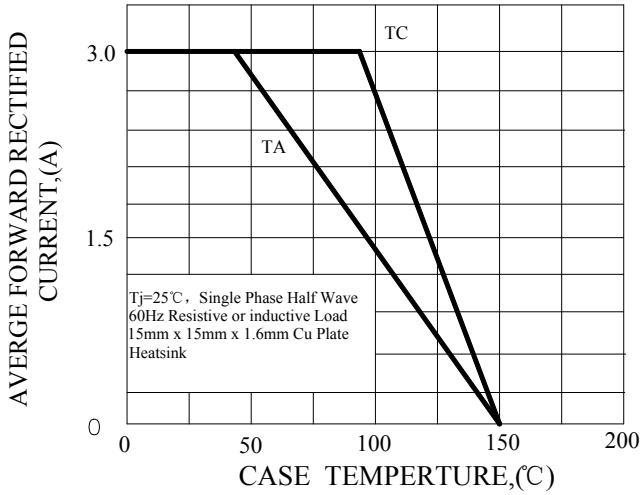


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

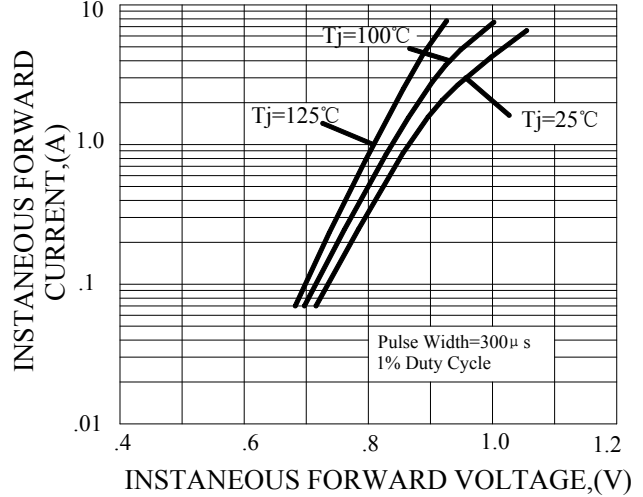


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

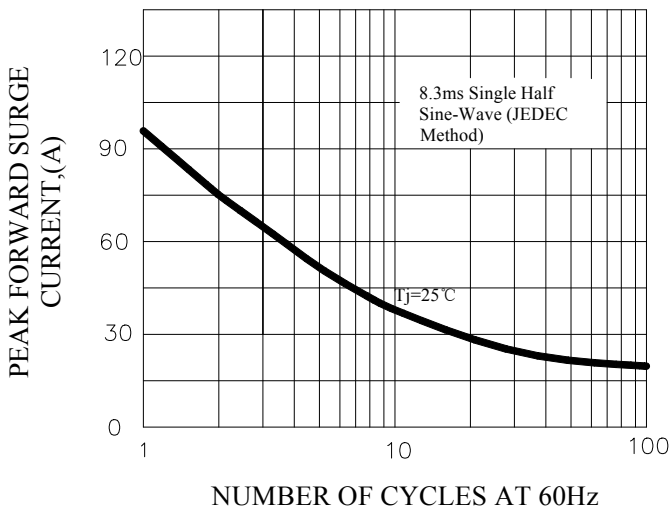


FIG.4-TYPICAL REVERSE CHARACTERISTICS

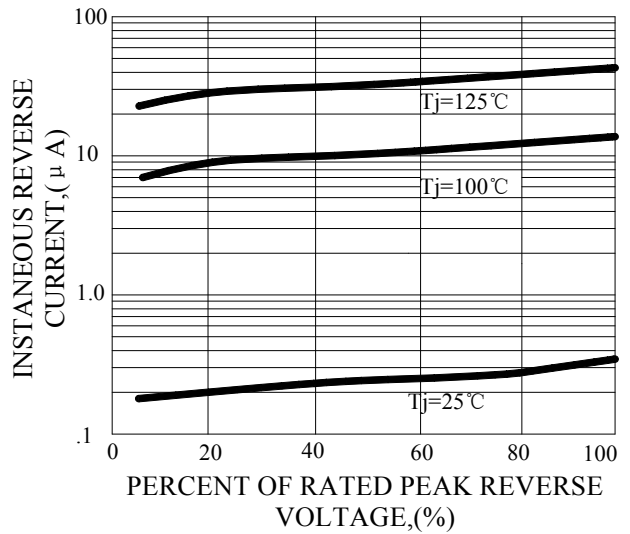


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

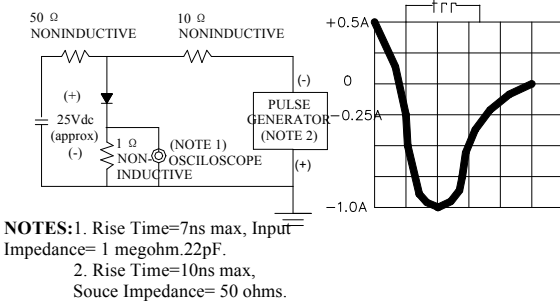
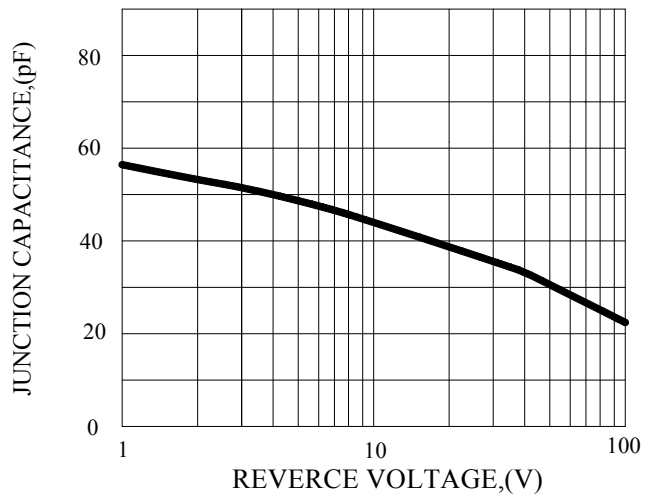


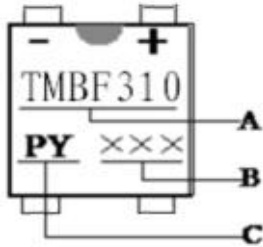
FIG.6-TYPICAL JUNCTION CAPACITANCE



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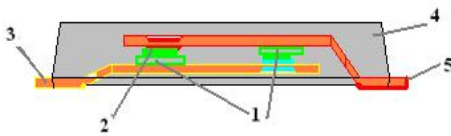
## TMBF302 THRU TMBF310

### 1、Marking



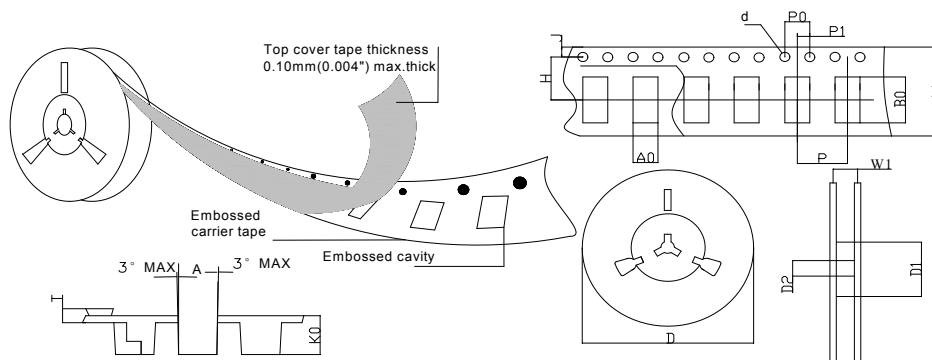
SYMBOL	Explanation
A	Product Name
B	Date Code
C	Trademark

### 2、Structure



SYMBOL	Explanation
1	Dice
2	Wire Bonding(Cu)
3	Lead Frame
4	Epoxy Compound
5	Plating

### 3、Packaging

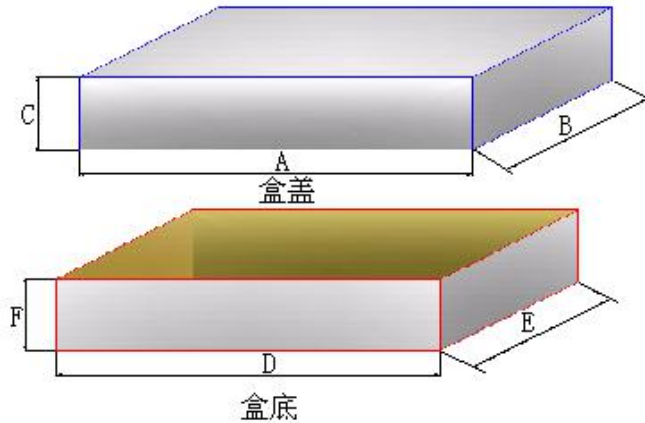


SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	TMBF	ITEM	SYM BOL	TMBF
Carrier width	A0	7.0(0.276)Max	Carrier depth	K0	1.70(0.067)Typ
Carrier length	B0	9.1(0.358)Max	Punch hole pitch	P	12.00(0.472)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	50.0(1.969)Min	Overall tape thickness	T	0.33(0.013)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	16.0(0.630)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	12.4(0.488)Min
Punch hole position	H	7.50(0.295)Typ			

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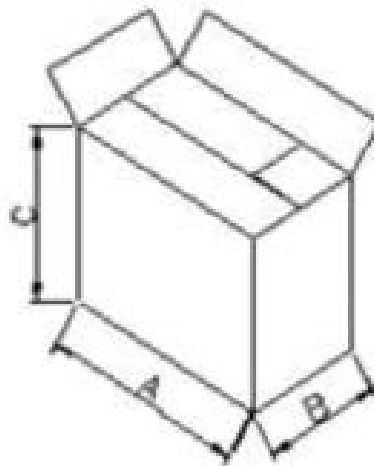
产品内盒及尺寸：（6000pcs / Box）



类别	A	B	C	D	E	F
TMBF (6K)	340	340	50	338	338	48

- 说明：1）、料为瓦楞纸，厚度 1.5mm。  
 2）、标示尺寸为内部尺，公差为+1/- 2mm。  
 3）、上下表面要求光滑，不得有污染，有划痕等不良。  
 4）、盒底和盒盖组合后，要求方正平直。

产品外箱及尺寸：（48000pcs / Carton）



产品名称	包装外形	A	B	C
TMBF	装 8 个卷装内盒	385	385	360

- 说明：1）、材质：5层瓦楞纸。  
 2）、颜色：牛皮纸原色。  
 3）、厚度：5.5mm(min)。  
 4）、公差：±3mm。  
 5）、尺寸标注：内部尺寸。