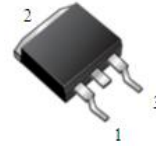


SF1006BS

10.0AMPS. SUPERFAST RECOVERY RECTIFIER

FEATURE

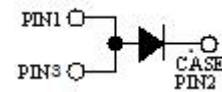
- . Low forward voltage drop
- . High current capability
- . High reliability
- . High surge current capability
- . Epitaxial construction
- . High temperature soldering guaranteed
260°C /10seconds, 0.25"(6.35mm)from case.



TO-263
SF1006BS

MECHANICAL DATA

- . Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
- . Mounting position: any



Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

Parameter	Symbol	SF1006BS	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Voltage	V_{RMS}	280	V
Maximum DC blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current at T _C =100°C <i>Total device</i>	$I_{F(AV)}$	10.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100.0	A
Maximum Reverse Recovery Time (Note 1)	t_{rr}	35	nS
Typical Junction Capacitance (Note 2)	C_J	50	pF
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

Parameter	Symbol	Typ	Max	Units
Maximum Forward Voltage at 10.0A DC	V_F	1.20	1.40	V
Maximum DC Reverse Current at rated DC blocking voltage	I_R	----	10 400.0	μA
				@T _A =25°C @T _A =100°C

THERMAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

Parameter	Symbol	SF1006BS	Units
Typical Thermal Resistance (Note 3)	$R_{(JC)}$	2.5	°C/W

Note:

1. Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance From Junction to Case

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

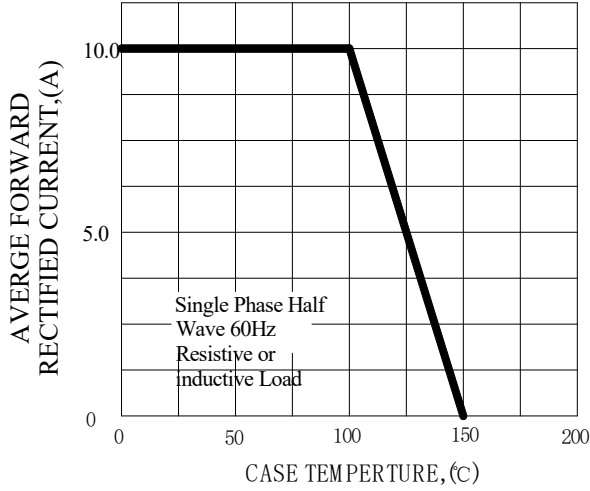


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

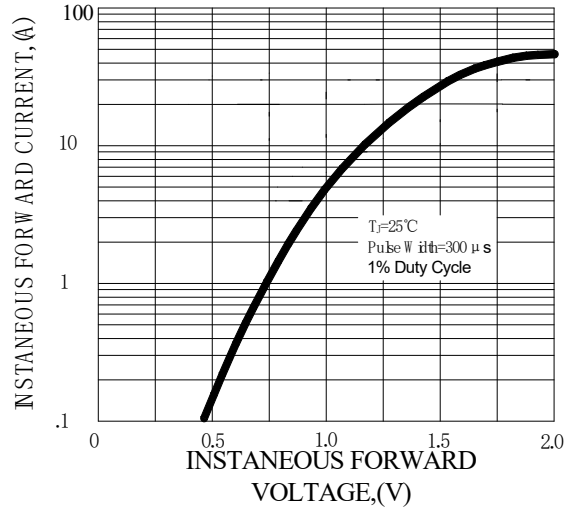


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

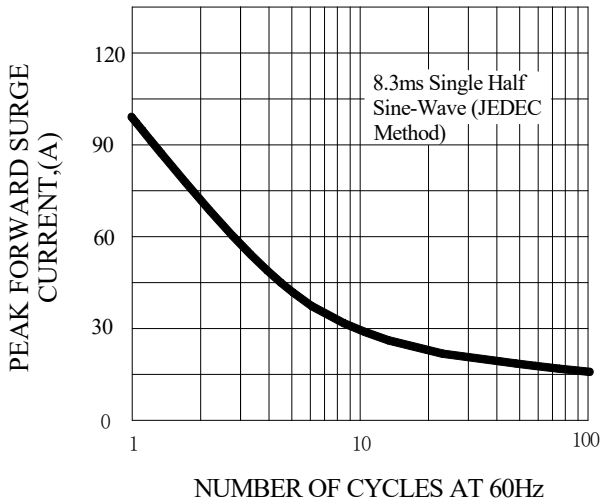


FIG.4-TYPICAL REVERSE CHARACTERISTICS

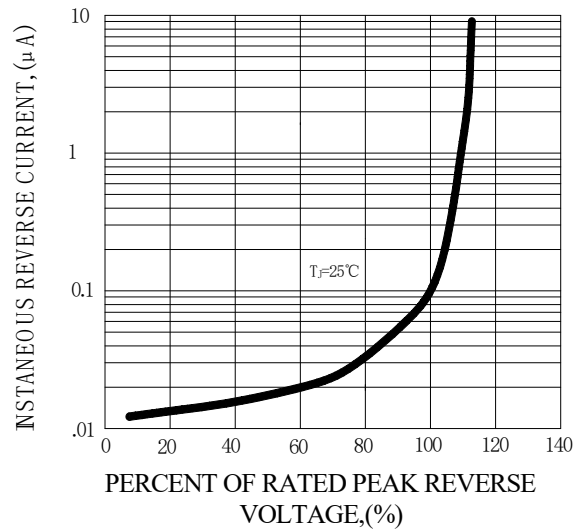
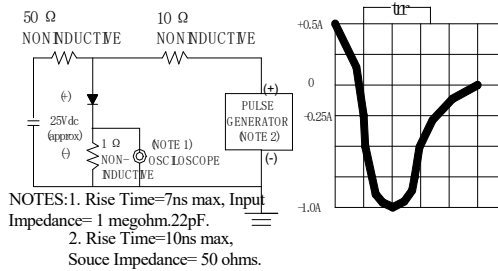
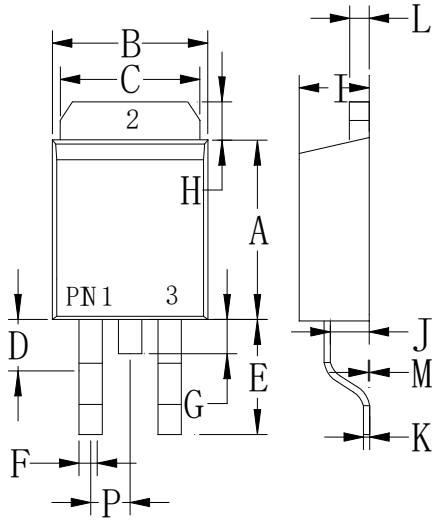


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



PACKAGE OUTLINE DIMENSIONS

TO-263

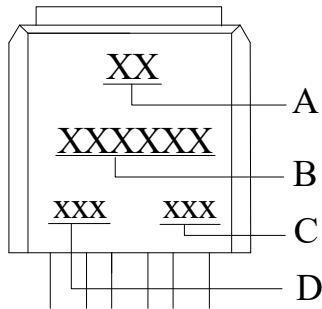


TO-263		
Dim	Min	Max
A	.323 (8.20)	.348 (8.85)
B	.394 (10.0)	.413 (10.5)
C	.394 (10.0)	.402 (10.2)
D	.077 (1.95)	.100 (2.55)
E	.204 (5.17)	.227 (5.77)
F	.027 (0.68)	.037 (0.94)
G	—	.067 (1.70)
H	.046 (1.17)	.053 (1.34)
I	.175 (4.44)	.191 (4.86)
J	.100 (2.54)	.110 (2.79)
K	.014 (0.35)	.025 (0.64)
L	.047 (1.20)	.055 (1.40)
M	.000 (0.00)	.010 (0.25)
P	.095 (2.41)	.105 (2.67)

Dimensions in inches and (millimeters)

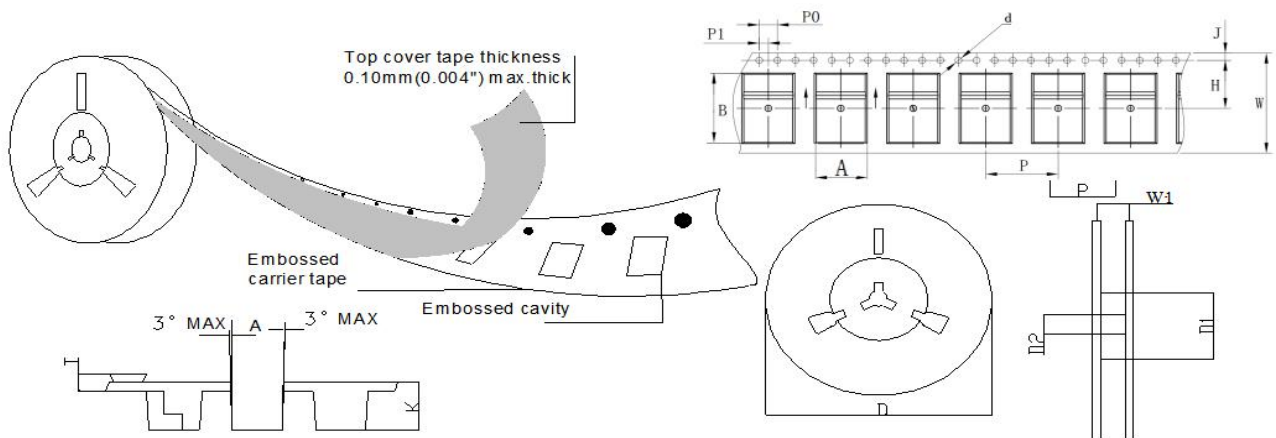
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Trademark
B	Product Name
C	Date Code
D	Product Information

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	TO-263	ITEM	SYM BOL	TO-263
Carrier width	A	11.65(0.459)Max	Carrier depth	K	5.15(0.203)Typ
Carrier length	B	17.05(0.672)Max	Punch hole pitch	P	16.00(0.630)Typ
Sprocket hole	d	ø1.50(0.059)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	90.0(3.54)Min	Overall tape thickness	T	0.40(0.016)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	24.0(0.945)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	25.5(1.000)Min
Punch hole position	H	11.50(0.453)Typ			

2.1 真空包装:



铝箔袋

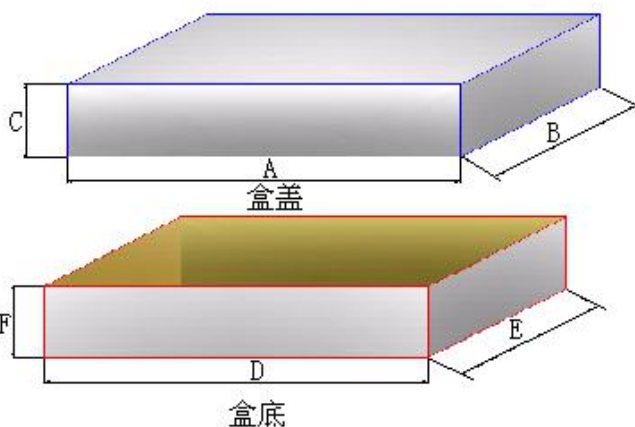


湿度卡



干燥剂

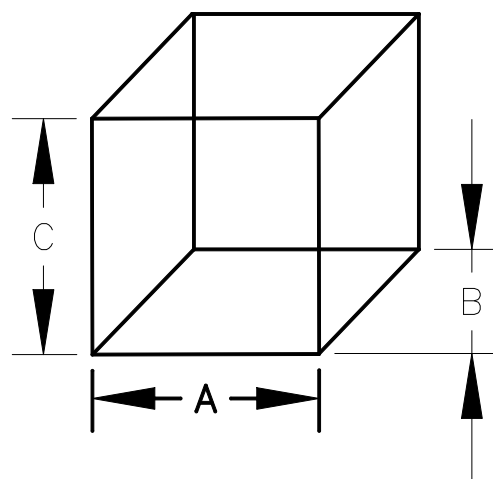
2.2 产品内盒及尺寸：（1600pcs / Box）



类别	A	B	C	D	E	F
TO-263	338	338	63	334	334	61

- 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。

2.3 产品外箱及尺寸：（8000pcs / Carton）



产品名称	包装外形	A	B	C
TO-263	装 5 个卷装内盒	350	350	345

- 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。

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[1N4745ARL](#) [1N4752ARL](#) [1N4760ARL](#) [1N5221B](#) [1N5242BTR](#) [1N5350B](#) [1N5352B](#) [1N961BRR1](#) [1N964BRL](#) [RKZ5.1BKU#P6](#)
[3SMAJ5946B-TP](#) [3SMAJ5950B-TP](#) [3SMBJ5925B-TP](#) [MMSZ5230BQ-13-F](#) [MMSZ5232BQ-13-F](#) [BZX84C7V5](#) [3SMAJ5945B-TP](#)
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