SZCJ Shenzhen Changji Semiconductor Co., LTD.

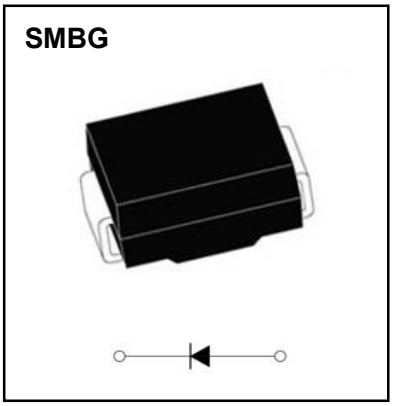
SMBG Plastic-Encapsulate Diodes

MURS320 THRU MURS360 Super Fast Recovery Rectifier Diodes

Features

- $I_{F(AV)}$ 3A
- V_{RRM} 200V-600V
- High surge current capability
- Polarity: Color band denotes cathode

SMBG



Applications

- Rectifier

Marking

- MURS3X0

X：From 2 to 6

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	MURS3			
				20	30	40	60
Repetitive Peak Reverse Voltage	V_{RRM}	V		200	300	400	600
Maximum RMS Voltage	V_{RMS}	V		140	210	280	420
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, T_a=100℃	3.0			
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	100			
Operation Junction and Storage Temperature Range	T_J,T_{STG}	℃		-55 ~ +150			

Electrical Characteristics (T=25 ℃Unless otherwise specified)

Item	Symbol	Unit	Test Condition		MURS3			
					20	30	40	60
Peak Forward Voltage	V_F	V	I_{FM}=3.0A		0.875	1.25		
Reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A Irr=0.25A		25	50		
Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM}	Ta =25 ℃	5			
	I_{RRM2}			Ta =100 ℃	100			
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		55			
	$R_{\theta J-L}$		Between junction and terminal		12			

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

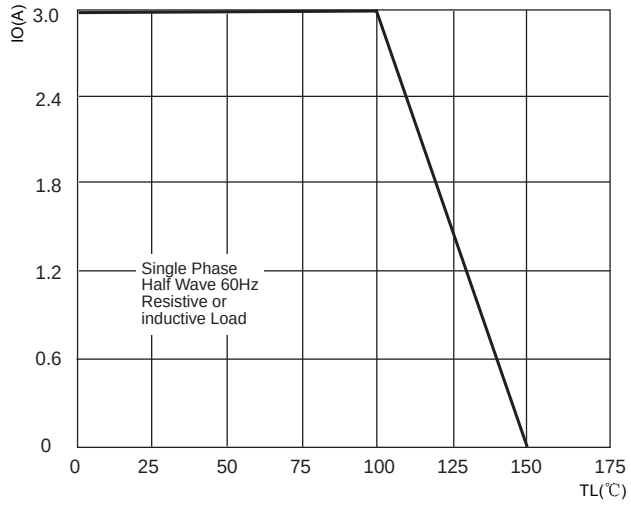


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

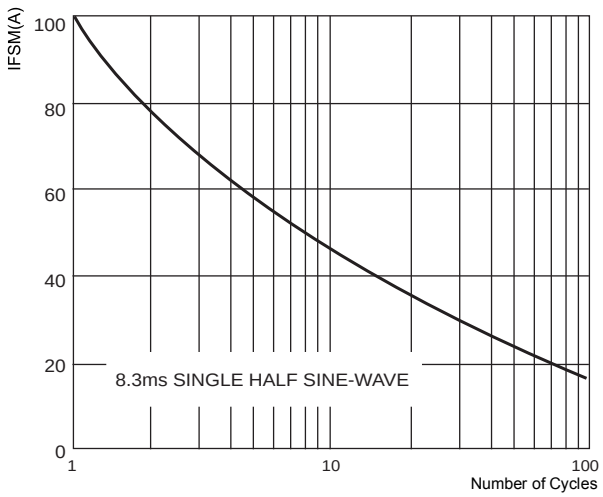


FIG.3: TYPICAL FORWARD CHARACTERISTICS

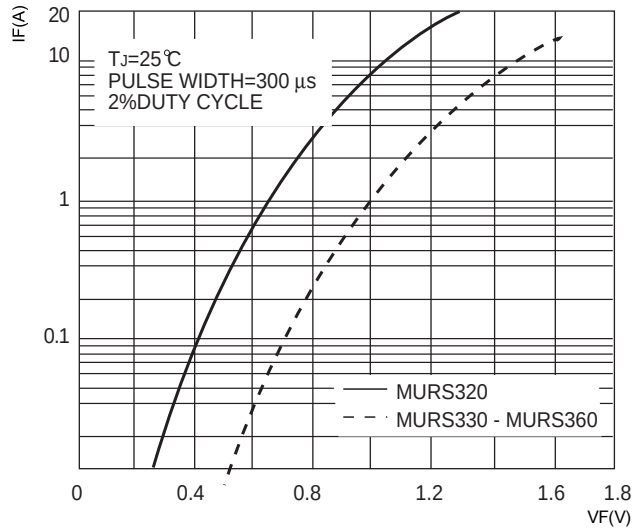


FIG.4：TYPICAL REVERSE CHARACTERISTICS

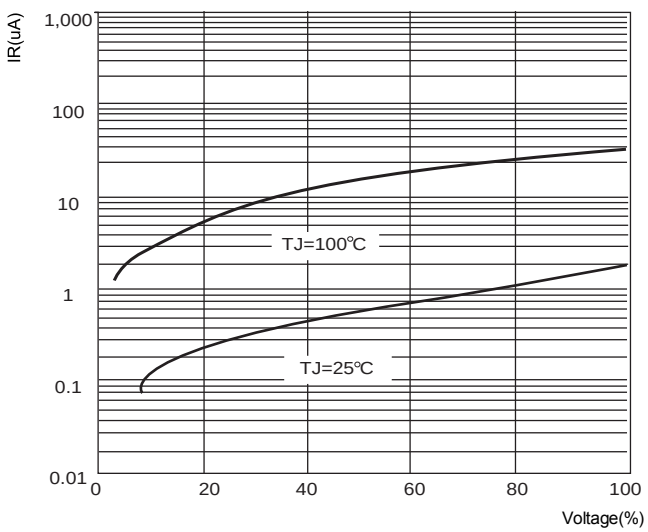
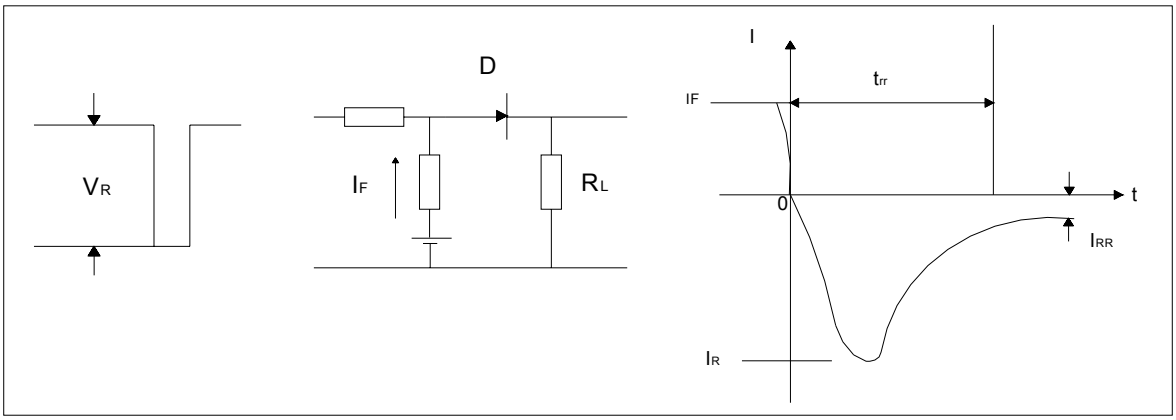
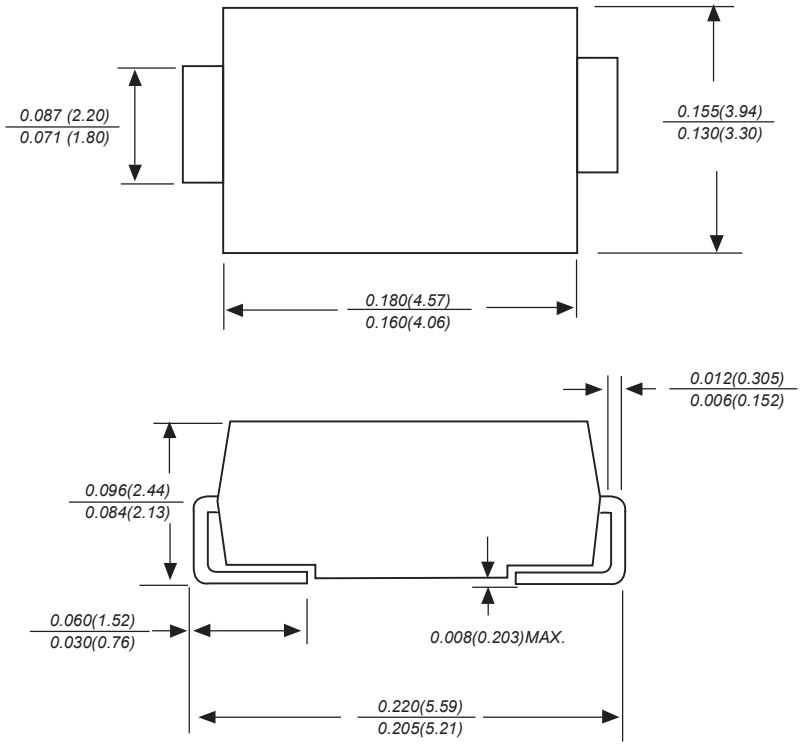


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

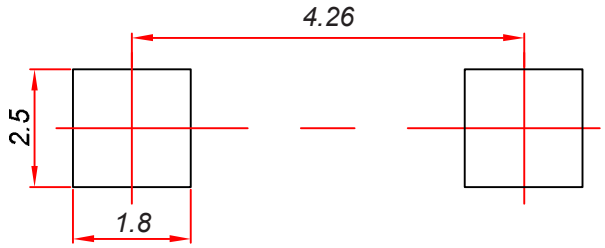


SMBG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMBG Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enha nts,improvements,corrections or other es without further notice to any product herein.SZCJ does not assume any liability arising out of the application or use of any product described .

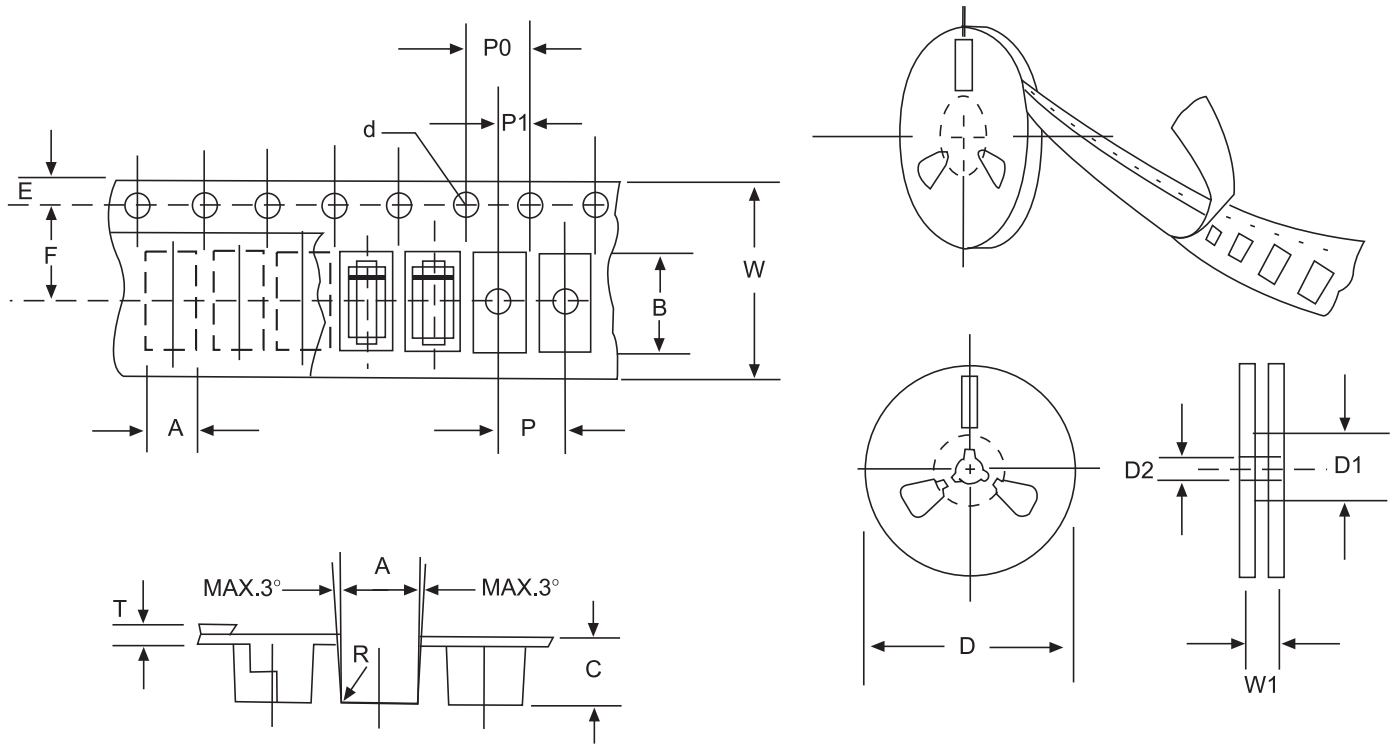


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMBG mm(inch)
Carrier width	A	4.09±0.1(0.161±0.004)
Carrier length	B	5.82±0.1(0.229±0.004)
Carrier depth	C	2.50±0.1(0.100±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	330±2.0(13±0.079)
Reel inner diameter	D1	75±1.0 (2.95 ±0.039)
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	5.65±0.05(0.222±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	2.0±0.1(0.079±0.004)
Totall tape thickness	T	0.32±0.1(0.013±0.004)
Tape width	W	12.0±0.2(0.472±0.008)
Reel width	W1	16.8±2.0(0.661±0.079)

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