SZCJ

Shenzhen Changji Semiconductor Co., LTD.

SMAG Plastic-Encapsulate Diodes

SS12 THRU SS120 Schottky Rectifier Diodes

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- SS1X

  X：From 2 To 20

SMAG





Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SS1								
				2	3	4	5	6	8	10	15	20
Repetitive Peak Reverse Voltage	V_{RRM}	V		20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V		14	21	28	35	42	56	70	105	140
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load	1.0								
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	30								
Junction Temperature	T_J	℃		-55~+125				-55~+150				
Storage Temperature	T_{STG}	℃		-55 ~ +150								

Electrical Characteristics (T =25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SS1							
					2	3	4	5	6	8	10	15	20
Peak Forward Voltage	V_F	V	I_F=1.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	T_a=25℃	0.5					0.1			
	I_{RRM2}			T_a=100℃	10					5.0			
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		88								
	$R_{\theta J-L}$		Between junction and terminal		28								
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		40			30		26		20	

Notes:

Thermal resistance from junction to ambient and from juction to lead mounted on FR4 PCB double sided copper mini pad

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

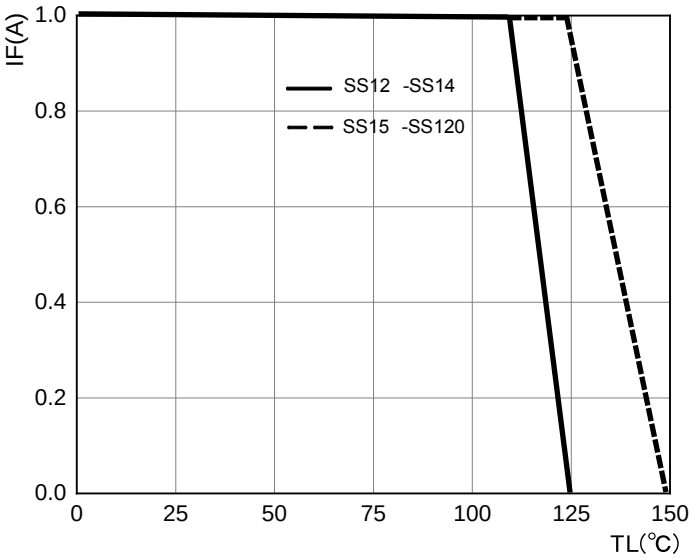
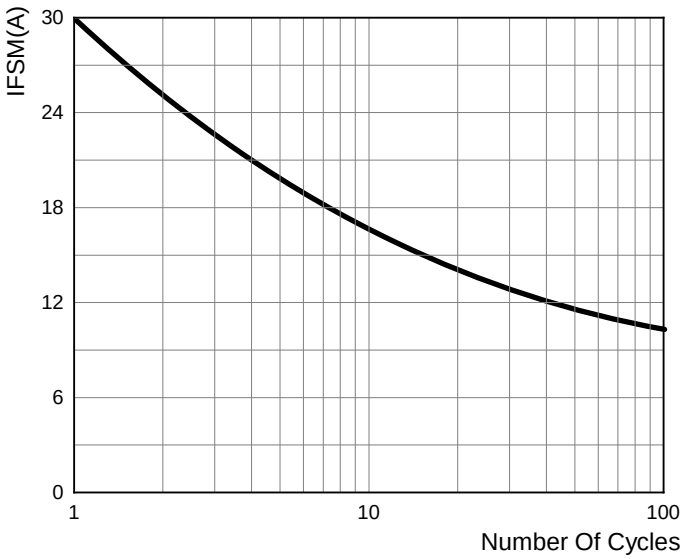
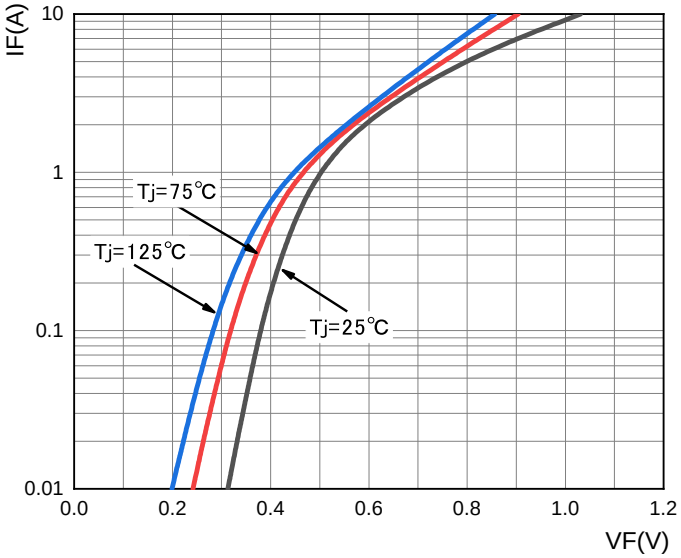


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



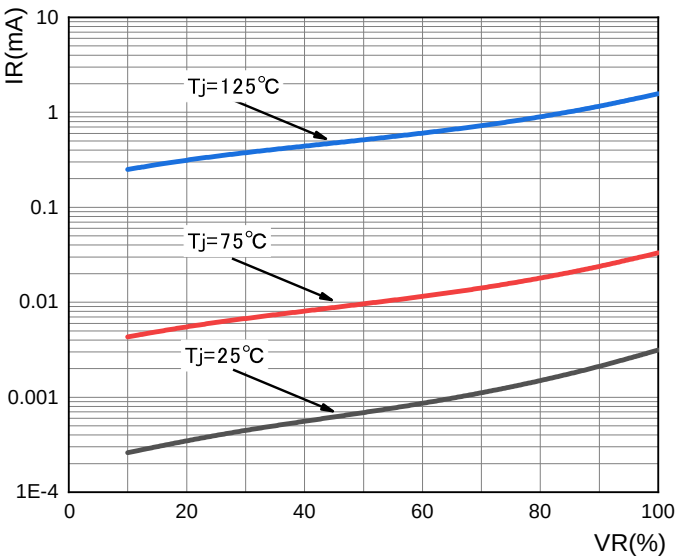
SS12-SS14

FIG.3:TYPICAL FORWARD CHARACTERISTICS



SS12-SS14

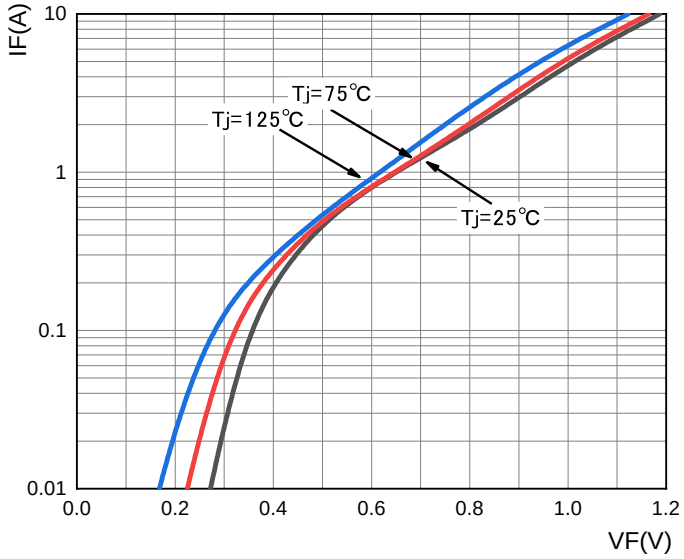
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

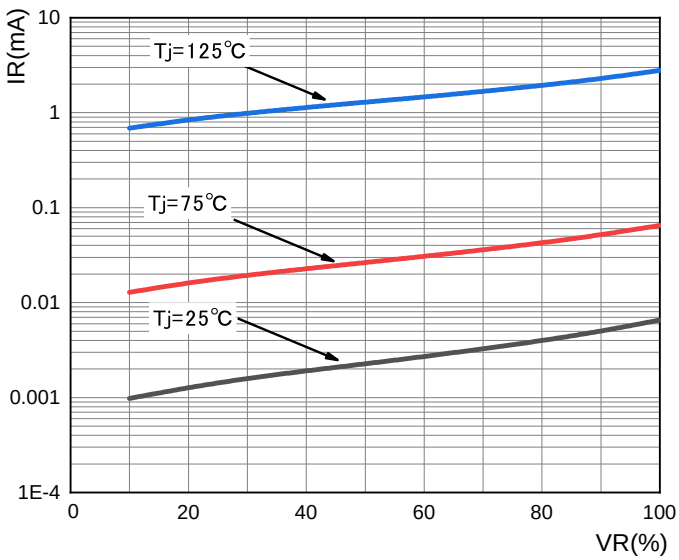
SS15-SS16

FIG.5: TYPICAL FORWARD CHARACTERISTICS



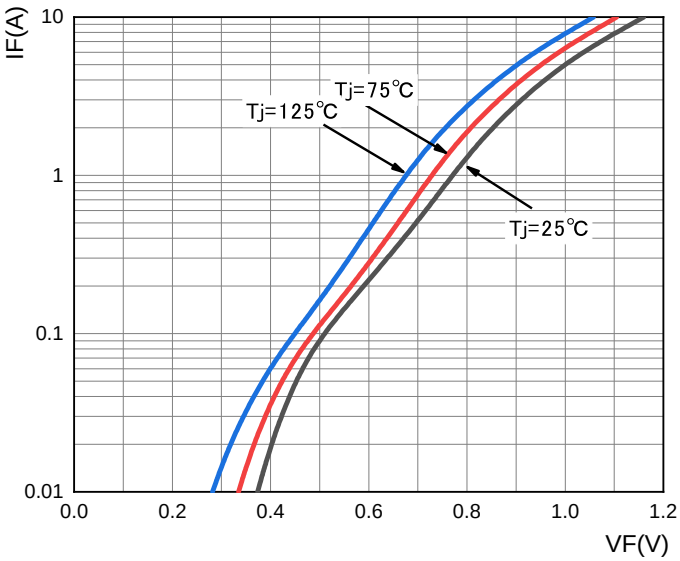
SS15-SS16

FIG.6: TYPICAL REVERSE CHARACTERISTICS



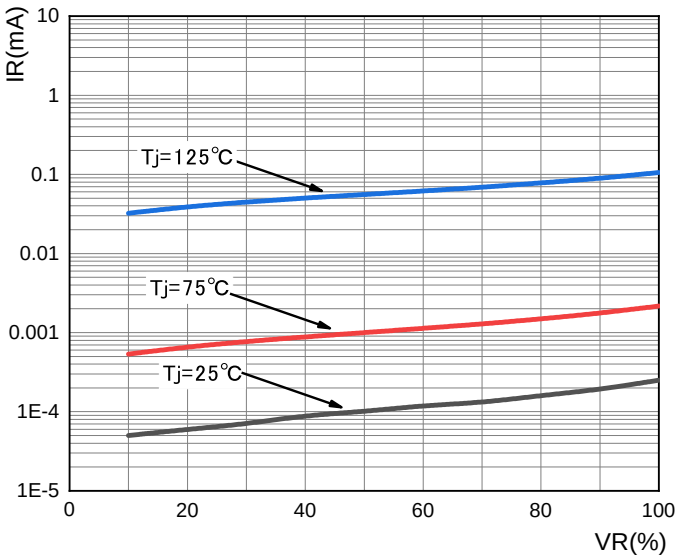
SS18-SS110

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SS18-SS110

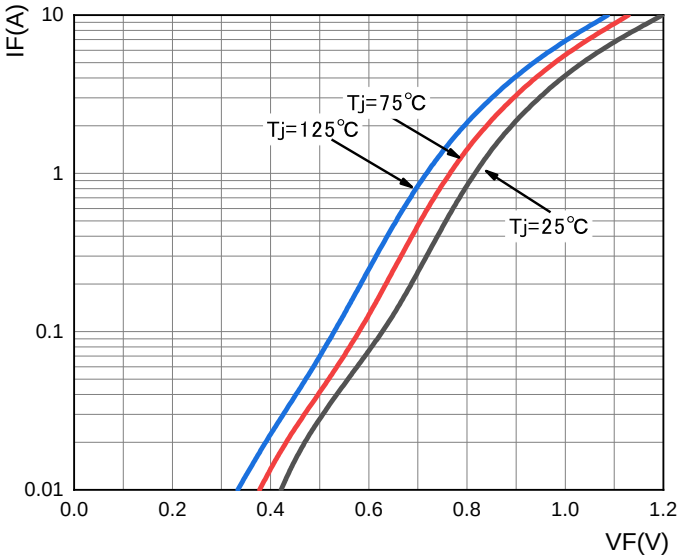
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

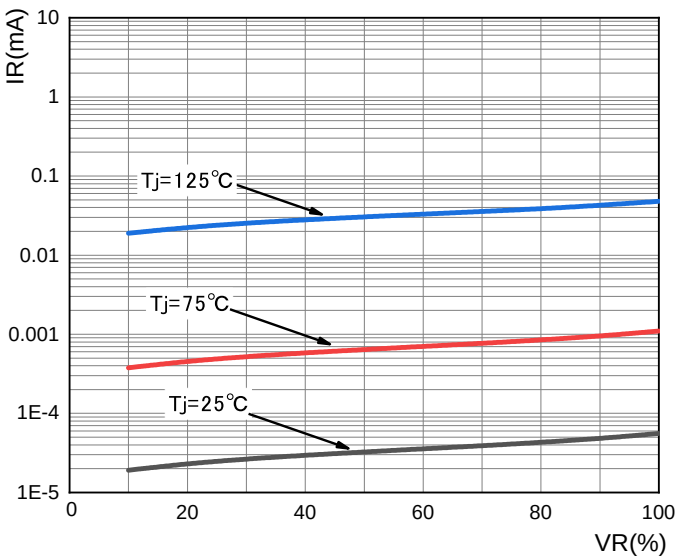
SS115

FIG.9: TYPICAL FORWARD CHARACTERISTICS



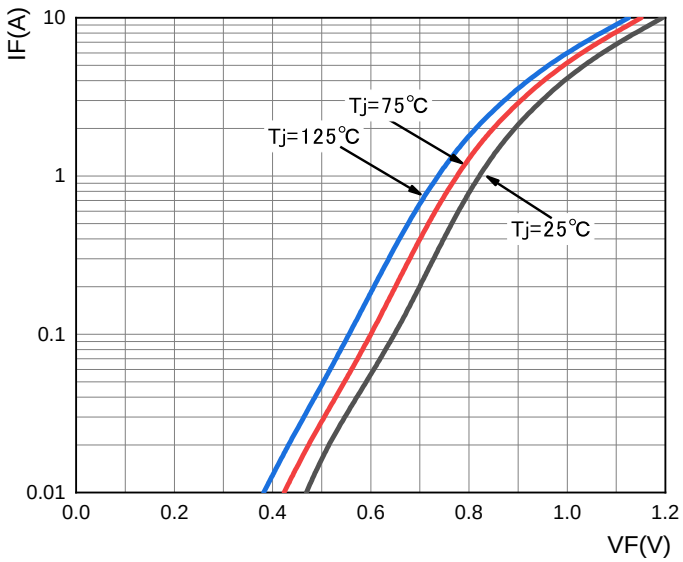
SS115

FIG10: TYPICAL REVERSE CHARACTERISTICS



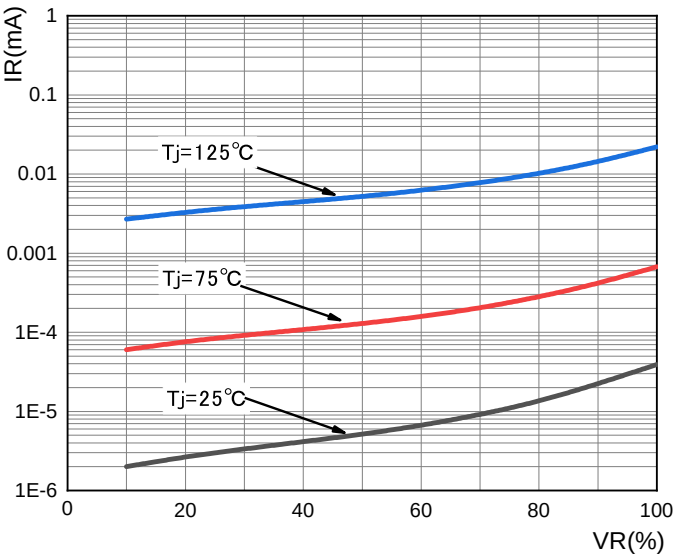
SS120

FIG.11: TYPICAL FORWARD CHARACTERISTICS

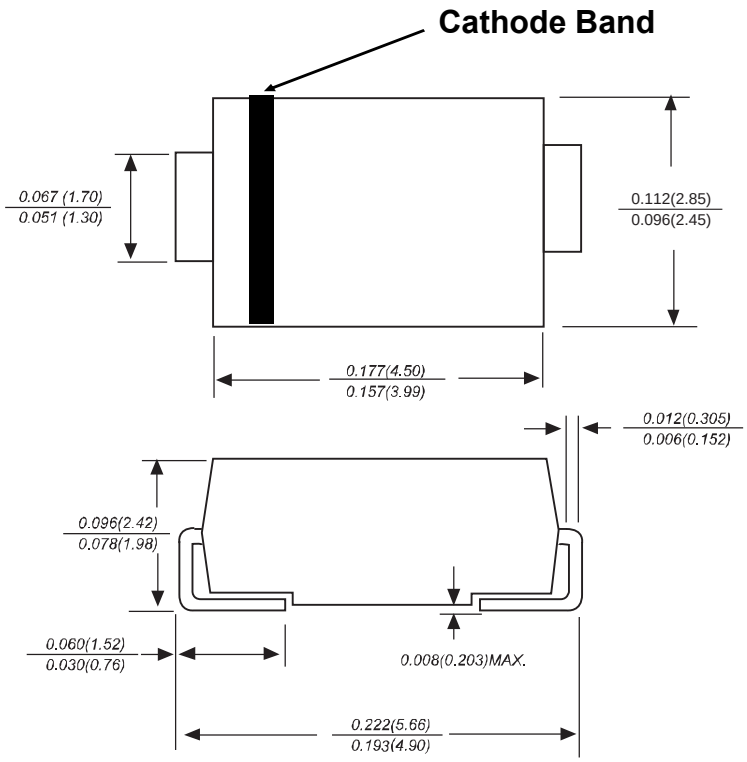


SS120

FIG.12: TYPICAL REVERSE CHARACTERISTICS

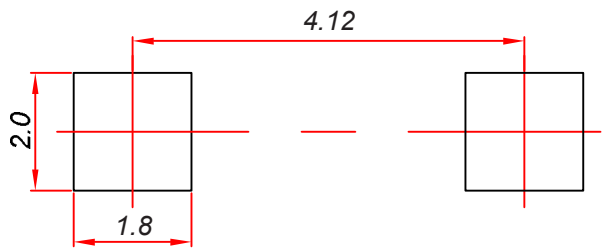


SMAG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAG 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 .

Reel Taping Specifications For Surface Mount Devices- SMAG

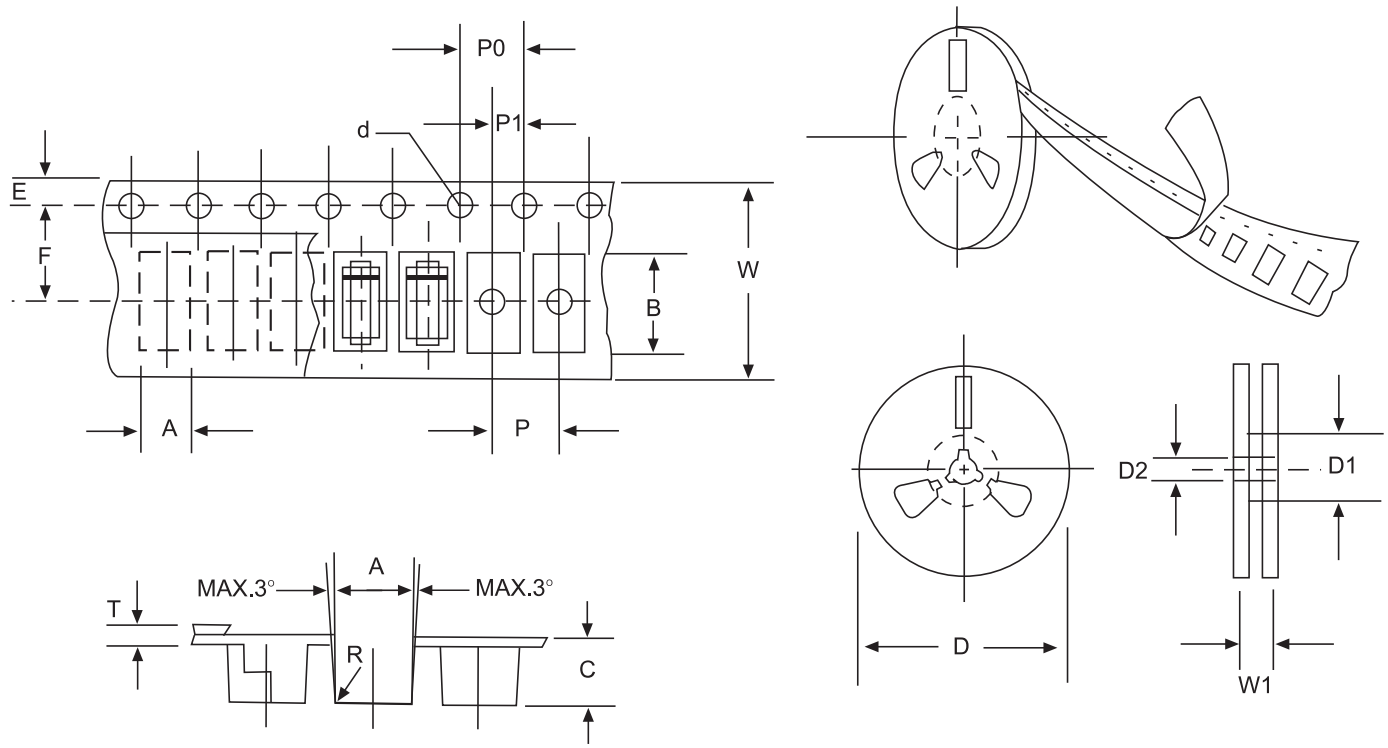


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMAG mm(inch)
Carrier width	A	2.79±0.1(0.110±0.004)
Carrier length	B	5.33±0.1(0.210±0.004)
Carrier depth	C	2.36±0.1(0.093±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	279±2.0 (11± 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	5.5±0.05(0.217±0.002)
Punch hole pitch	P	4.0±0.1(0.157±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	0.28±0.02(0.011±0.0008)
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.