

SMAJ Plastic-Encapsulate Diodes

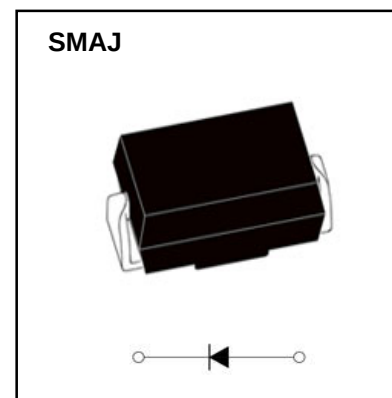
Schottky Rectifier

Features

- I_o 2A
- V_{RRM} 20V-200V
- Low forward voltage drop
- High surge current capability
- Metal silicon junction, majority carrier conduction

Mechanical Data

- Case: SMAJ molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208
- Polarity: Color band denotes cathode end



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SS 22	SS 23	SS 24	SS 25	SS 26	SS 28	SS 210	SS 215	SS 220
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
Maximum DC Blocking Voltage	V _{DC}	V		20	30	40	50	60	80	100	150	200
Average Forward Current	I _{F(AV)}	A	60HZ Half-sine wave, Resistance load, TL(Fig.1)	2.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave ,1 cycle , Ta =25℃	50								
Junction Temperature	T _J	℃		-55~+125			-55~+150					
Storage Temperature	T _{STG}	℃		-55 ~ +150								

Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SS 22	SS 23	SS 24	SS 25	SS 26	SS 28	SS 210	SS 215	SS 220
Peak Forward Voltage	V _F	V	I _F =2.0A		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			
	T _a =100℃			10					5.0				
Thermal Resistance(Typical)	R _{θJ-A}	℃/W	Between junction and ambient		70								
	Between junction and terminal		30										
	Between junction and case		25										
Juction Capacitance (Typical)	Cj	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		103			95		60		32	

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

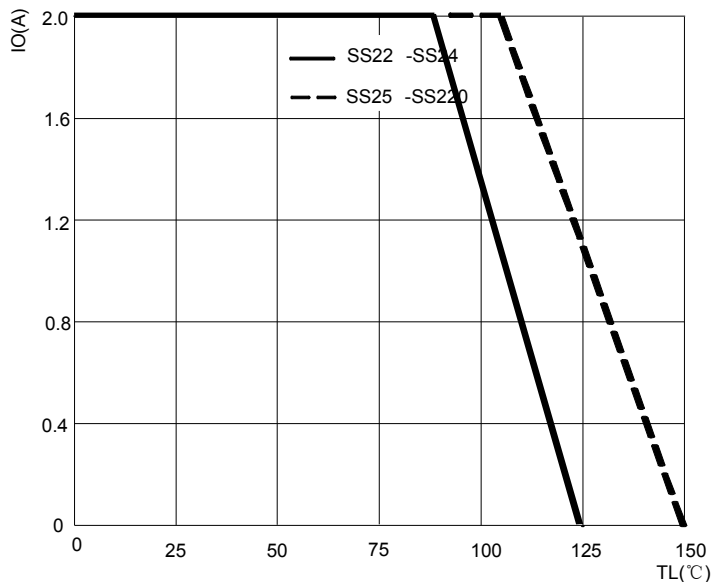


FIG2: Surge Forward Current Capability

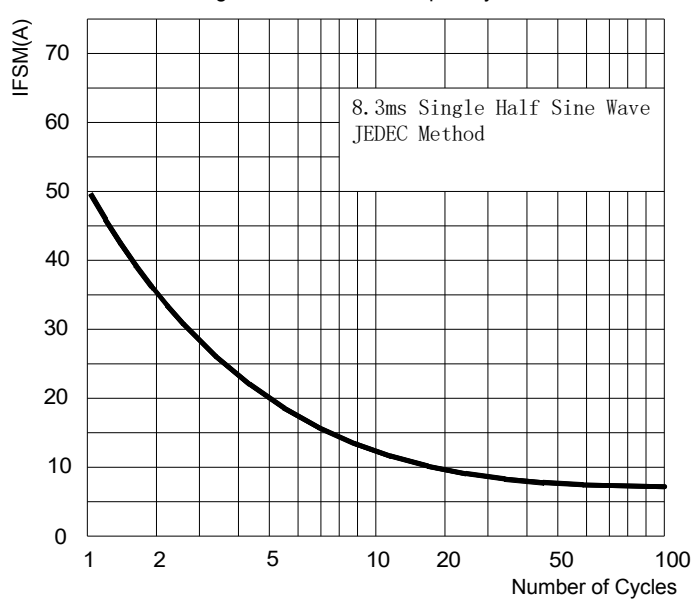


FIG.3: TYPICAL FORWARD CHARACTERISTICS

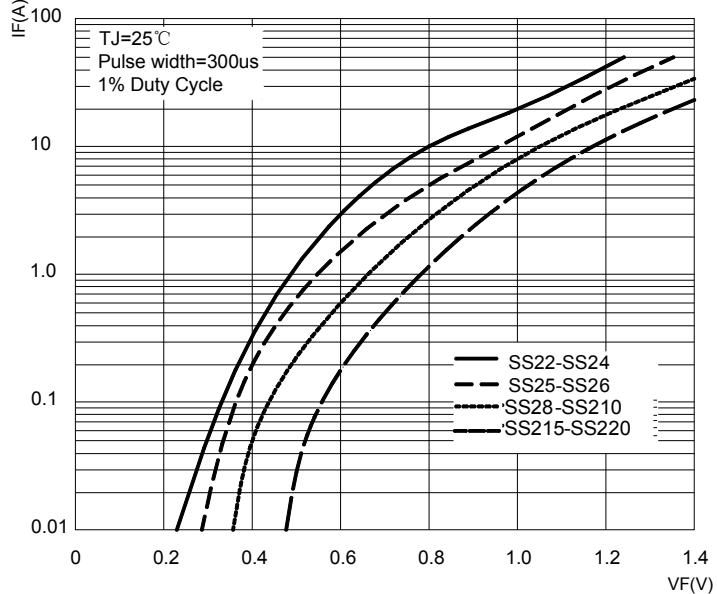
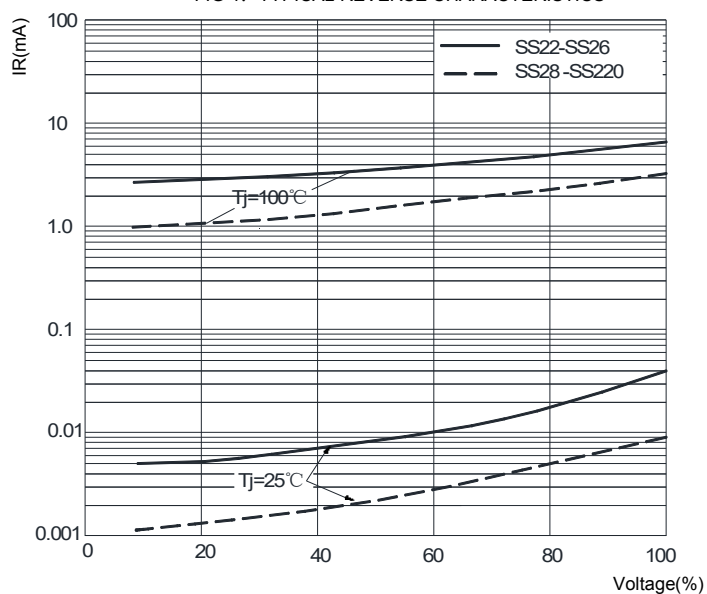
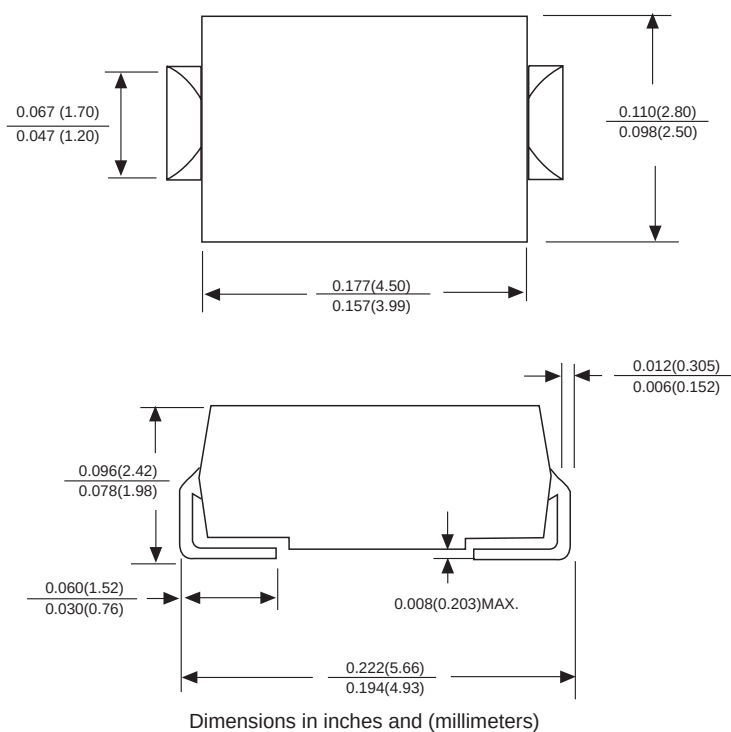


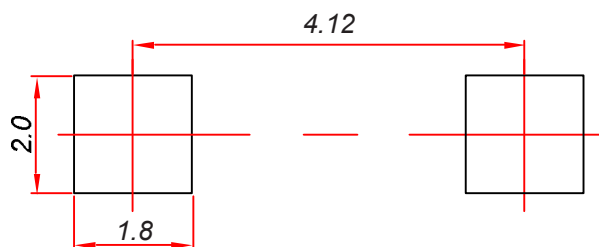
FIG 4: TYPICAL REVERSE CHARACTERISTICS



SMAJ Package Outline Dimensions



SMAJ Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Ordering Information

Part Number	Package	Shipping Quantity
SS22-SS220	SMAJ	5000/tape&Reel

Marking Diagram



X: From 2 To 20

Reel Taping Specifications For Surface Mount Devices- SMAJ

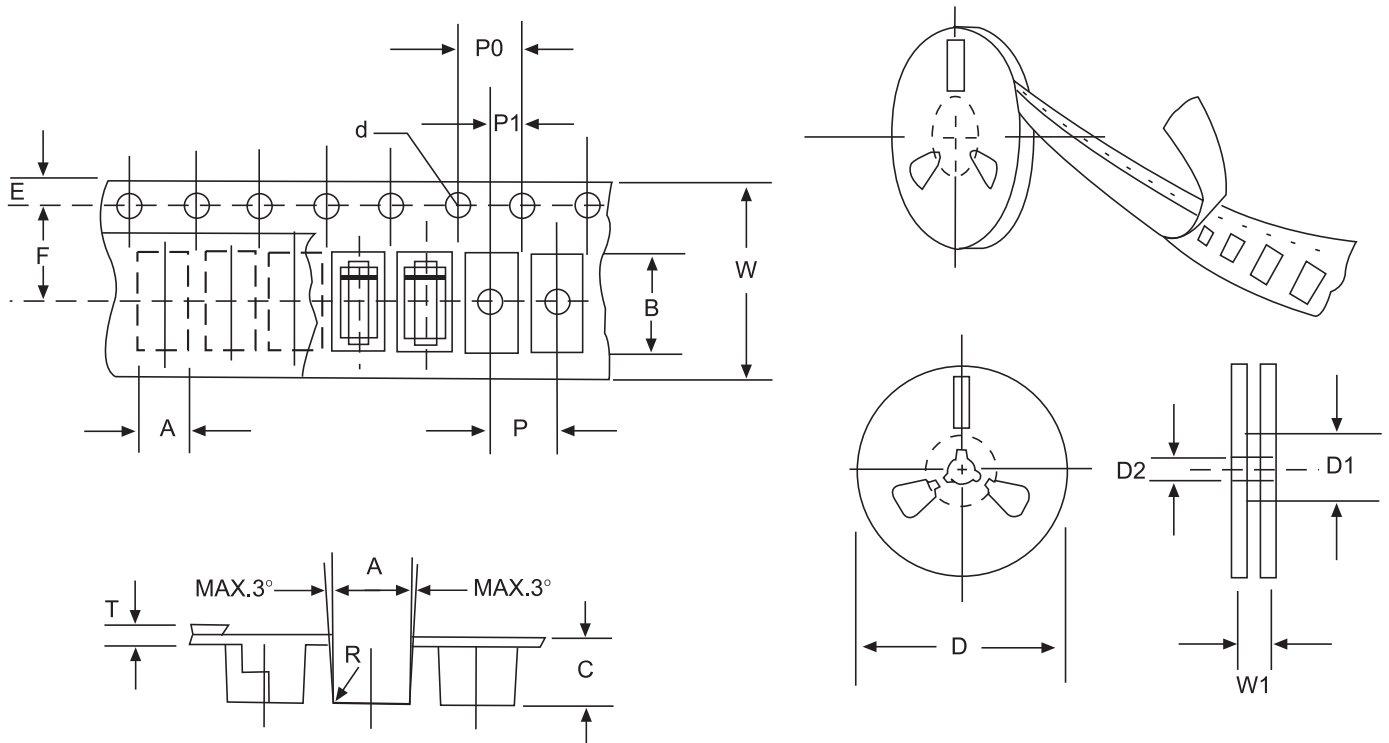


Fig:CONFIGURATION OF FLAT MELF TAPING

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)
Sprocket 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)
Total 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 packde in accordance with EIA standard RS-481-A and specification given above.