

# SS12 THRU SS120

## SMAG Plastic-Encapsulate Diodes

### Schottky Rectifier

#### Features

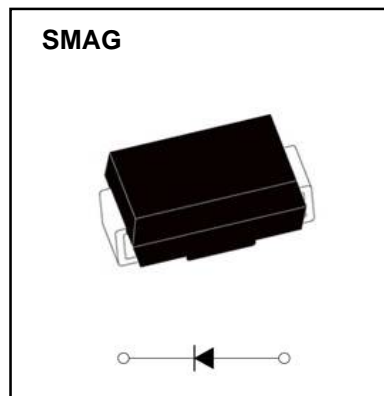
- $I_o$  1A
- $V_{RRM}$  20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

#### Applications

- Rectifier

#### Marking

- SS1X
- X : From 2 To 20



#### Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SS 12	SS 13	SS 14	SS 15	SS 16	SS 18	SS 110	SS 115	SS 120
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, TL(Fig.1)	1.0								
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave ,1 cycle , $T_a = 25^\circ C$	30								
Junction Temperature	$T_J$	$^\circ C$		-55~+125				-55~+150				
Storage Temperature	$T_{STG}$	$^\circ C$		-55 ~ +150								

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

Item	Symbol	Unit	Test Condition	SS 12	SS 13	SS 14	SS 15	SS 16	SS 18	SS 110	SS 115	SS 120
Peak Forward Voltage	$V_F$	V	$I_F = 1.0A$	0.55			0.70		0.85		0.95	
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM} = V_{RRM}$	$T_a = 25^\circ C$			0.5		0.1			
	$I_{RRM2}$			$T_a = 100^\circ C$			10		5.0			
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ C/W$	Between junction and ambient	65 <sup>1)</sup>								
	$R_{\theta J-L}$		Between junction and terminal	20 <sup>1)</sup>								

#### 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

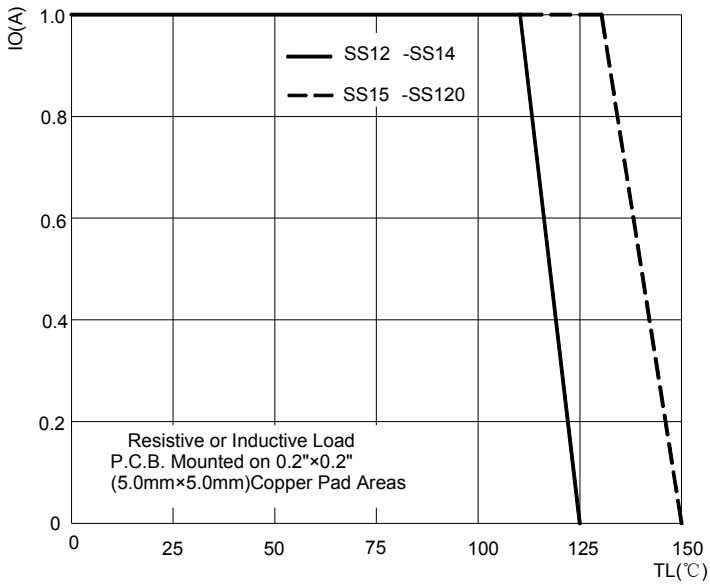


FIG2:Surge Forward Current Capadility

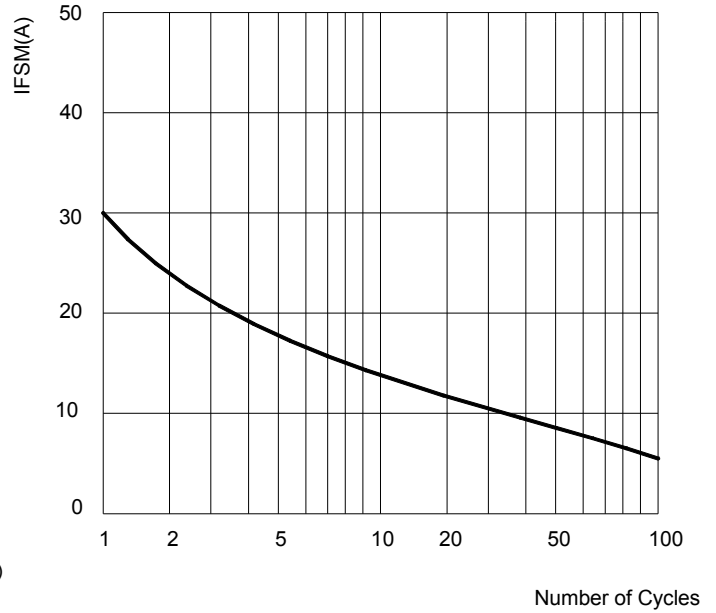


FIG.3: TYPICAL FORWARD CHARACTERISTICS

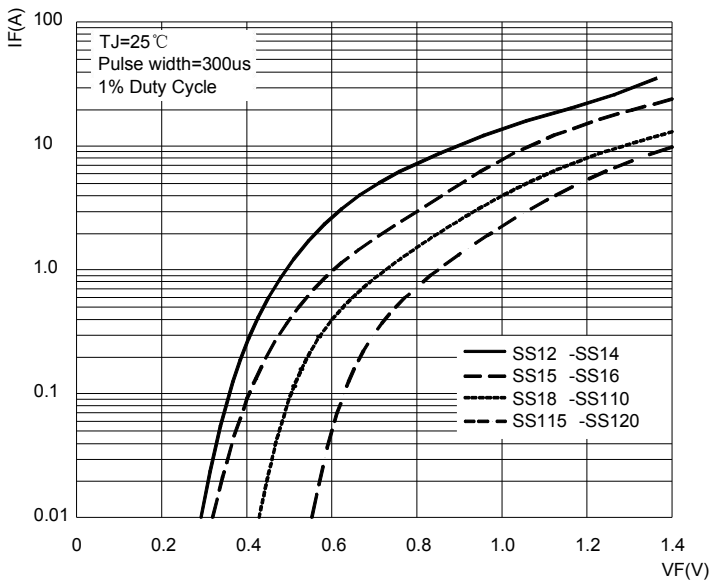
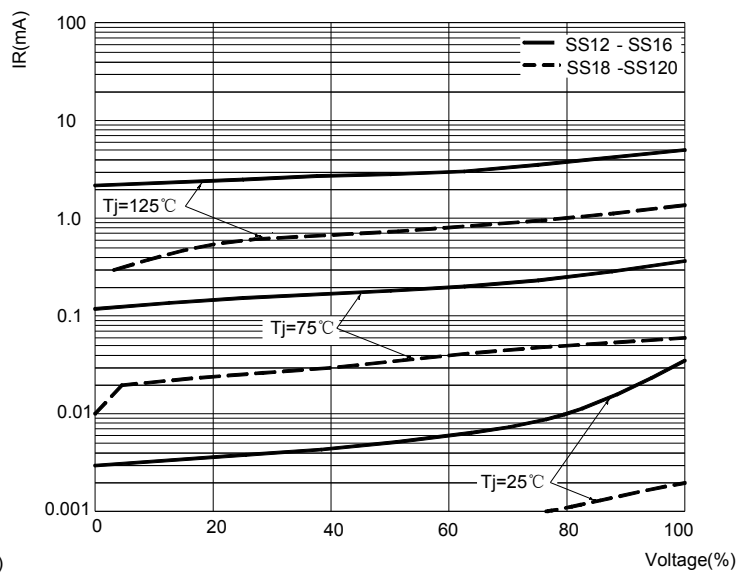
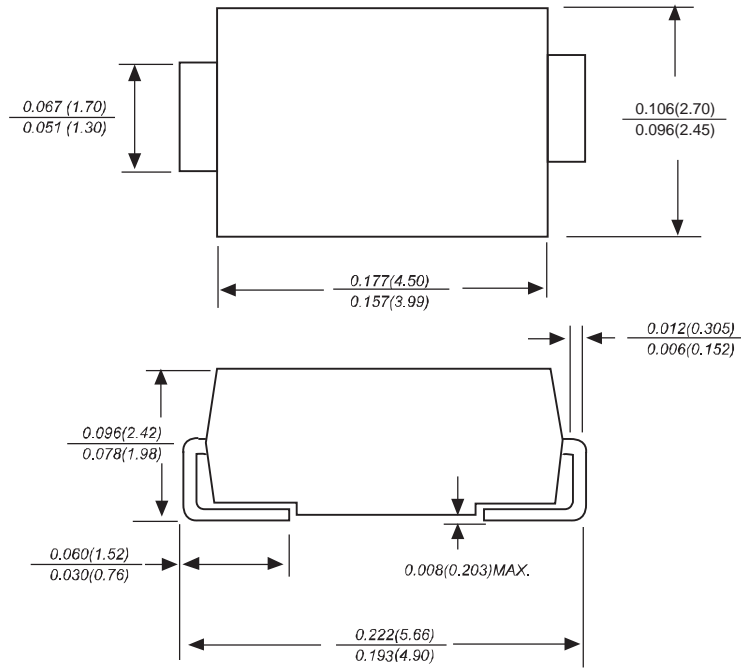


FIG.4: TYPICAL REVERSE CHARACTERISTICS

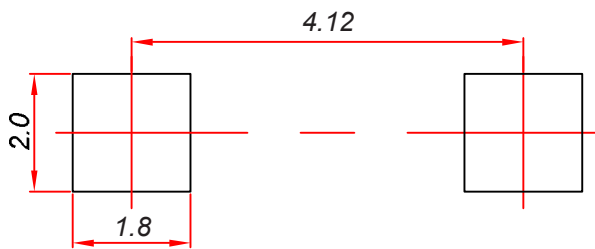


## SMAG Package Outline Dimensions



Dimensions in inches and (millimeters)

## SMAG Suggested Pad Layout



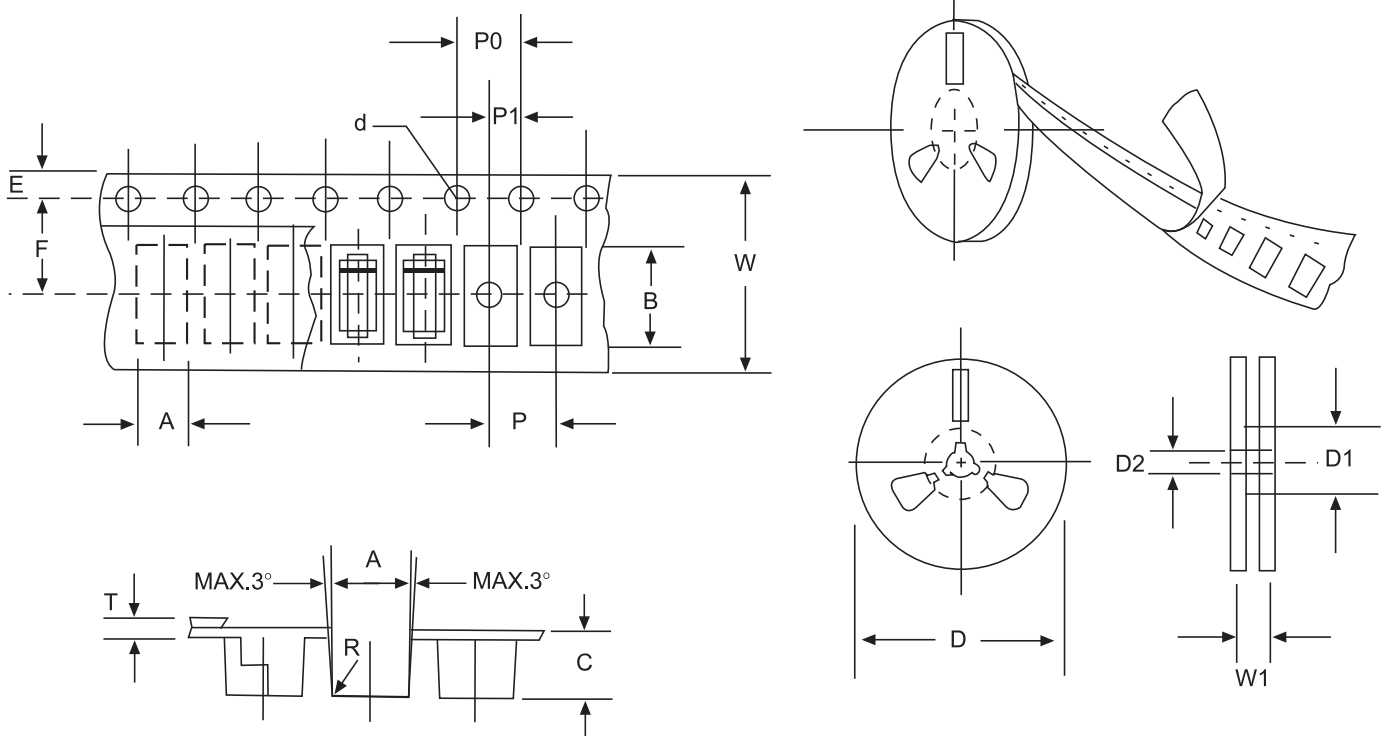
### Note:

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

### NOTICE

JSHD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSHD does not assume any liability arising out of the application or use of any product described herein.

## Reel Taping Specifications For Surface Mount Devices- SMAG



**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 packed in accordance with EIA standard RS-481-A and specification given above.