

## SMAF Plastic-Encapsulate Diodes

Low VF MOS Schottky Rectifier Diode

### Features:

- $I_{F(AV)}$  3A
- $V_{RRM}$  45V
- High surge current capability
- Polarity: Color band denotes cathode
- Low peak forward voltage

### Applications:

- Rectifier

### Marking

- SS345LF:SS345LF

SMAF



### Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	KSS345LF
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		45
Maximum RMS Voltage	$V_{RMS}$	V		31.5
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_a=100^{\circ}C$	3.0
Surge(Non-repetitive)ForwardCurrent	$I_{FSM}$	A	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$	120
Junction Temperature	$T_J$	$^{\circ}C$		-55 ~ +150
Storage Temperature	$T_{STG}$	$^{\circ}C$		-55 ~ +150

### Electrical Characteristics (T=25°C Unless otherwise specified)

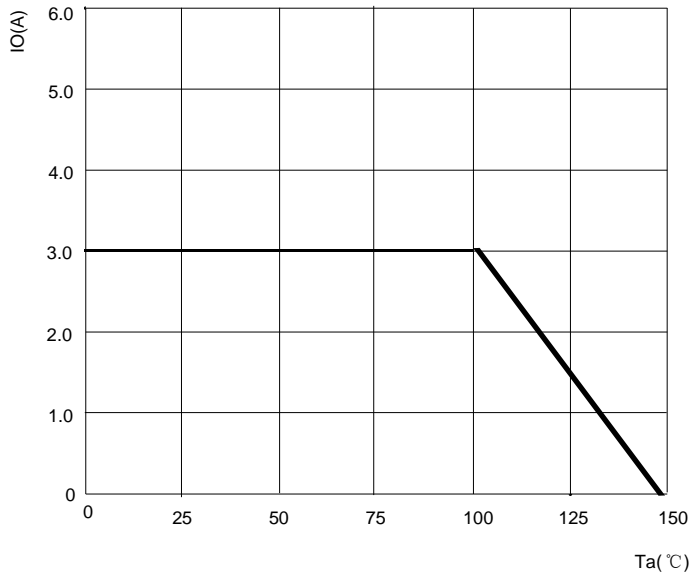
Item	Symbol	Unit	Test Condition		KSS54LF	
Peak Forward Voltage	$V_F$	V	$I_F=3.0A$	$T_a=25^{\circ}C$	0.42(TYP)	0.45(MAX)
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$	0.05(TYP)	0.3(MAX)
	$I_{RRM2}$			$T_a=100^{\circ}C$	50	
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^{\circ}C/W$	Between junction and ambient		55	
	$R_{\theta J-L}$		Between junction and lead		17	

### Notes:

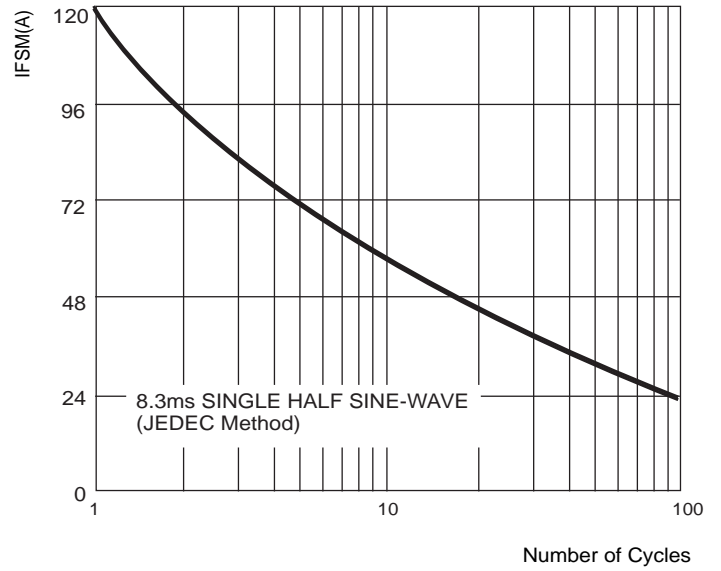
Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

**Typical Characteristics**

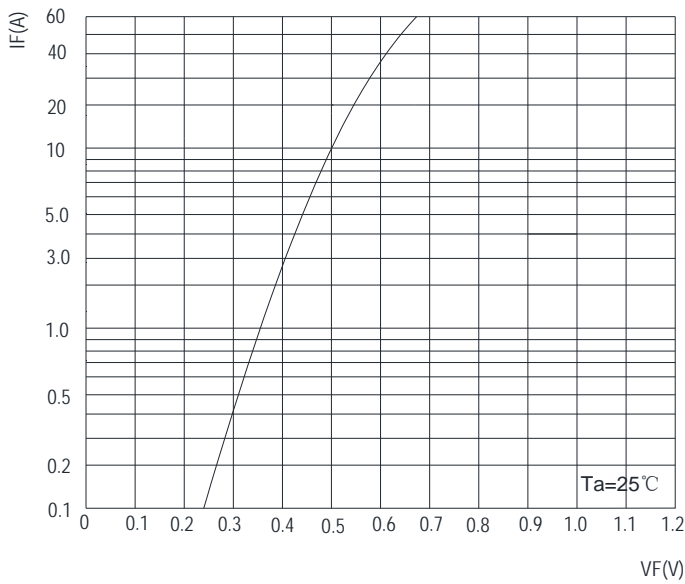
**FIG.1: FORWARD CURRENT DERATING CURVE**



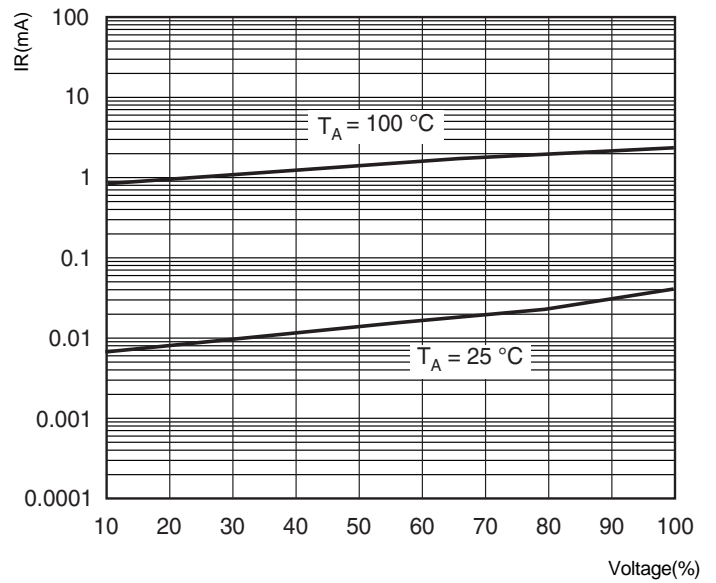
**FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



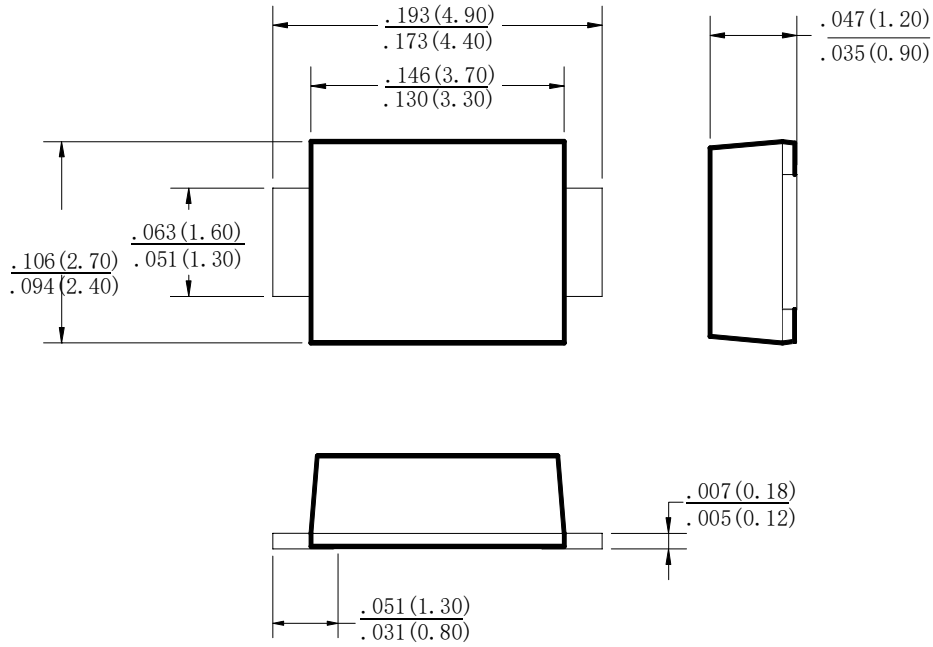
**FIG.3: TYPICAL FORWARD CHARACTERISTICS**



**FIG.4: TYPICAL REVERSE CHARACTERISTICS**

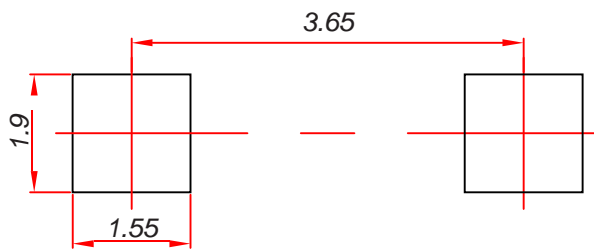


**SMAF Package Outline Dimensions**



Dimensions in inches and (millimeters)

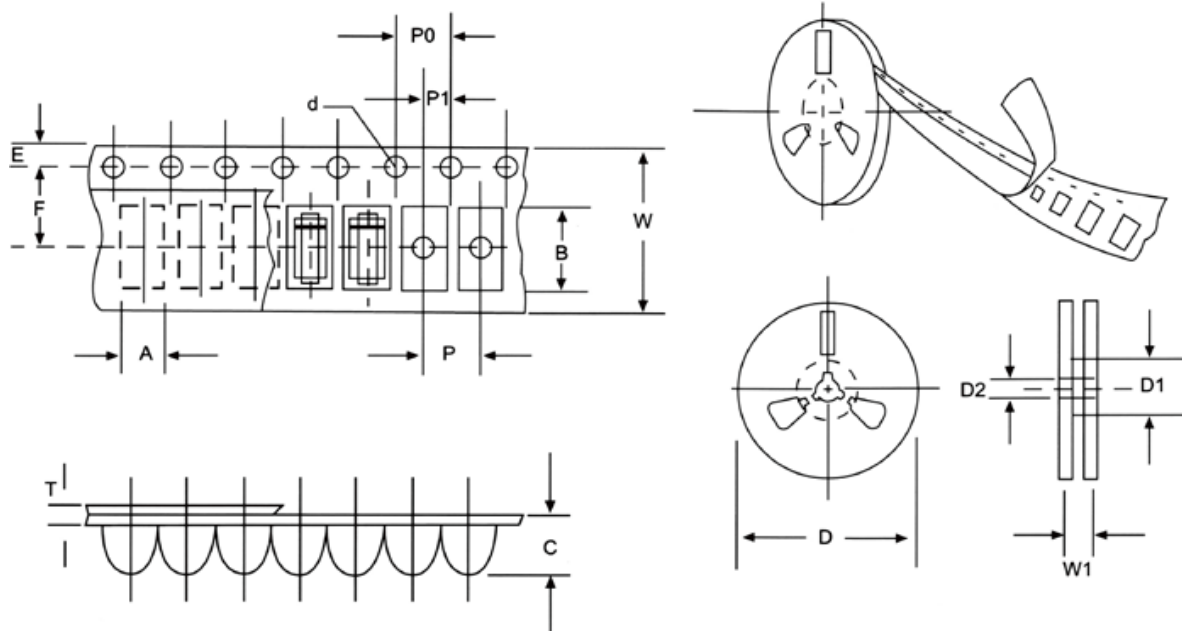
**SMAF Suggested Pad Layout**



**Note:**

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

**Reel Taping Specifications For Surface Mount Devices- SMAF**



**FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING**

ITEM	SYMBOL	SMAF mm(inch)
Carrier width	A	2.83+0.1(0.112+0.004)
Carrier length	B	4.90+0.1(0.193+0.004)
Carrier depth	C	1.45+0.1(0.057+0.004)
Sprocket hole	d	1.55+0.05(0.061+0.002)
Reel outside diameter	D	178+2.0( 7.0+0.079)
Reel inner diameter	D1	54±1.0 ( 2.13 ±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)
Total tape thickness	T	0.23-0.29(0.009-0.011)
Tape width	W	12.0+0.1(0.472+0.004)
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.