RoHS COMPLIANT

HALOGEN FREE

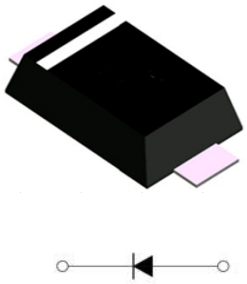
SMAF Plastic-Encapsulate Diodes

Schottky Rectifier

Features

- I_O 5A
- VRRM 40V
- High surge current capability
- Polarity: Color band denotes cathode
- Low Vf

SMAF



Applications

- Rectifier

Marking

- SS54L

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	SS54LF
Repetitive Peak Reverse Voltage	V_{RRM}	V		40
Maximum RMS Voltage	V_{RMS}	V		28
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, TL= 90 ℃	5.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave,1 cycle, Ta=25℃	120
Junction Temperature	T_J	℃		-55~+125
Storage Temperature	T_{STG}	℃		-55~+150

Electrical Characteristics (T_a=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SS54LF
Peak Forward Voltage	V_F	V	IF=1A IF=3A IF=5A	T_a=25℃	0.32(TYP) 0.35(MAX) 0.37(TYP) 0.40(MAX) 0.42(TYP) 0.45(MAX)
Peak Reverse Current	I_{RRM1}	mA	V_{RM}=V_{RRM}	T_a=25℃	0.05(TYP) 0.3(MAX)
	I_{RRM2}			T_a=100℃	50
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		60
	$R_{\theta J-L}$		Between junction and lead		20

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

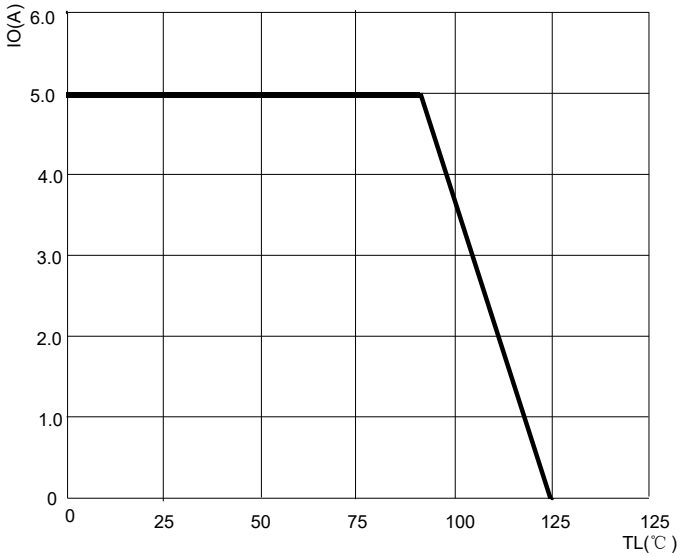


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

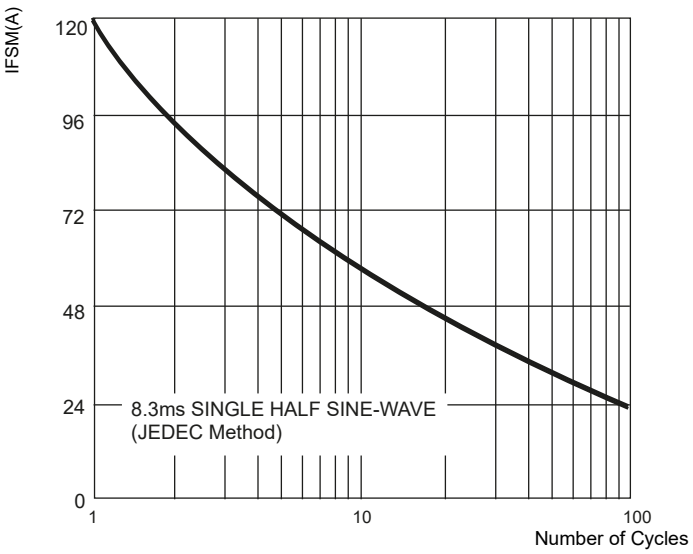


FIG3：Forward Voltage

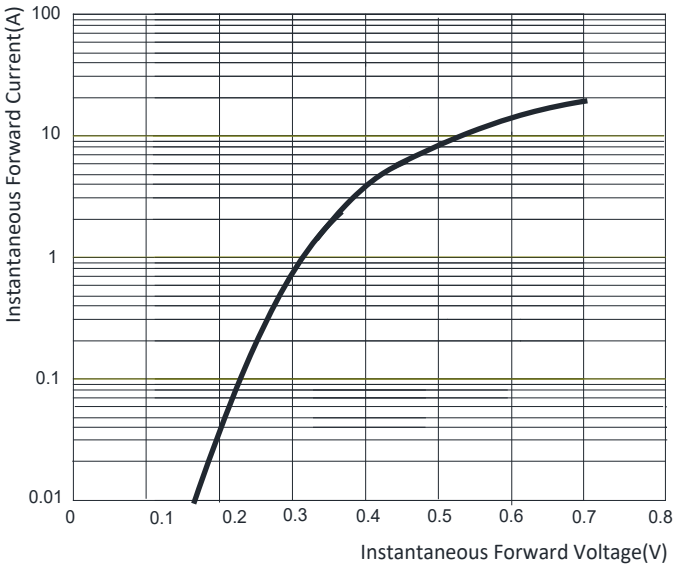
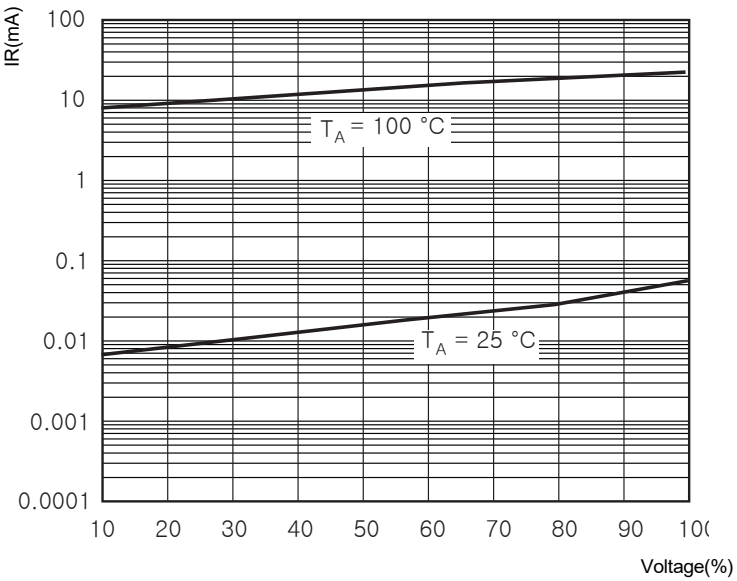
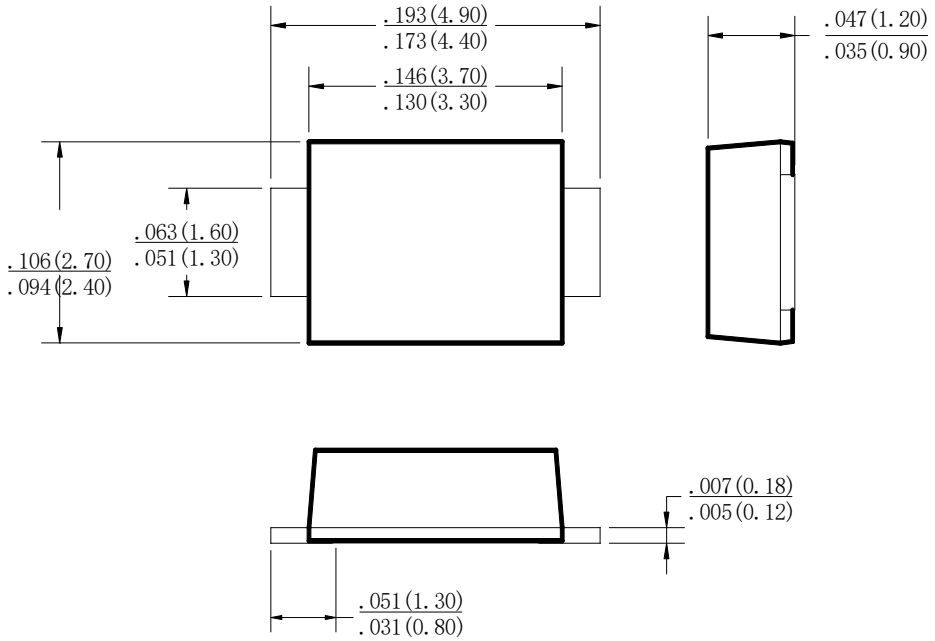


FIG.4：TYPICAL REVERSE CHARACTERISTICS

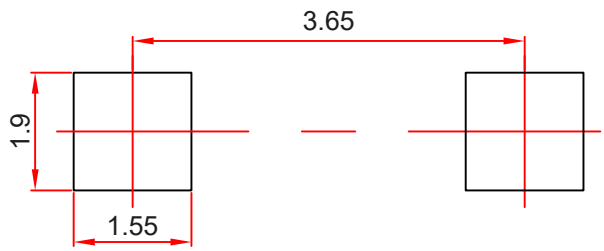


SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAF Suggested Pad Layout



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

Reel Taping Specifications For Surface Mount Devices- SMAF

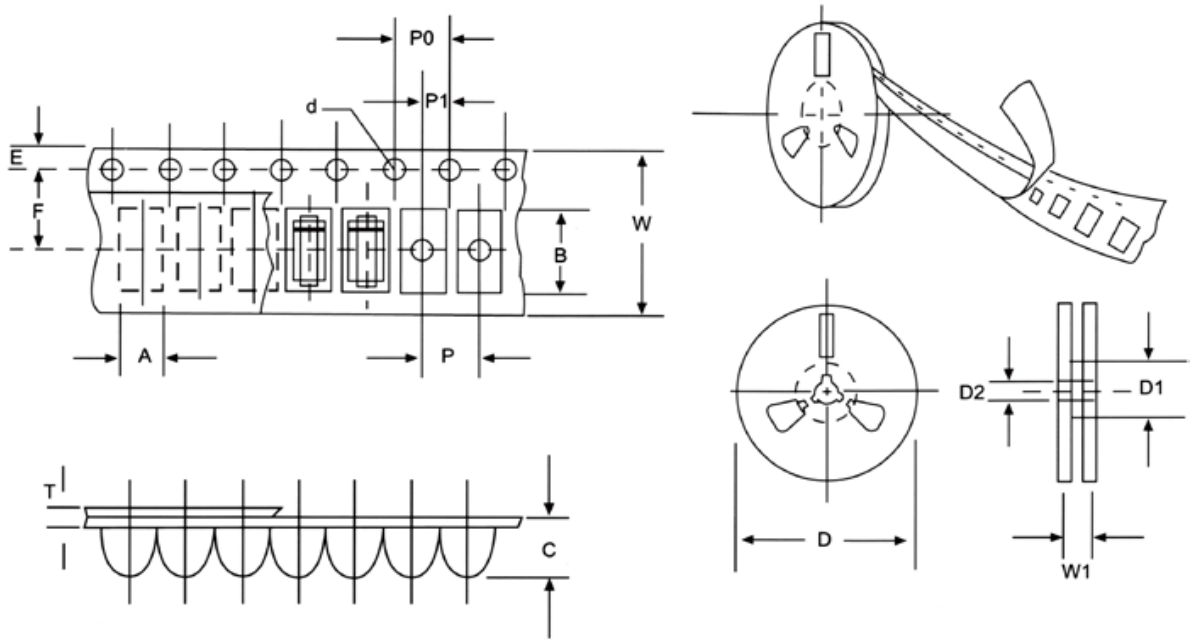


FIG:CONFIGURATION OF AXIAL TAPING

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)
Stroket 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	0.23-0.29(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.