HIGH DIODE

SS52F THRU SS520F

RoHS COMPLIANT

HALOGEN FREE

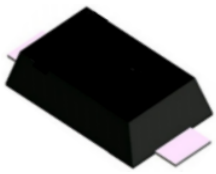
SMAF Plastic-Encapsulate Diodes

Schottky Rectifier

Features

- I_O 5A
- VRRM 20V-200V
- Low forward voltage drop
- High surge current capability
- Metal silicon junction, majority carrier conduction

SMAF



Mechical Data

- Case: SMAF 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 52F	SS 53F	SS 54F	SS 55F	SS 56F	SS 58F	SS 510F	SS 515F	SS 520F
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)	5.0								
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave ,1 cycle , Ta =25℃	150								
Junction Temperature	T_J	℃		-55~+125			-55~+150					
Storage Temperature	T_{STG}	℃		-55 ~ +150								

Electrical Characteristics (T_a=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SS 52F	SS 53F	SS 54F	SS 55F	SS 56F	SS 58F	SS 510F	SS 515F	SS 520F
Peak Forward Voltage	V_F	V	I_F=5.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	Ta =25℃	0.5					0.1			
	I_{RRM2}			Ta =100℃	10					5.0			
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		78								
	$R_{\theta J-L}$		Between junction and terminal		20								
	$R_{\theta J-C}$		Between junction and case		18								
Juction Capacitance (Typical)	Cj	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		280			220		160		80	

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

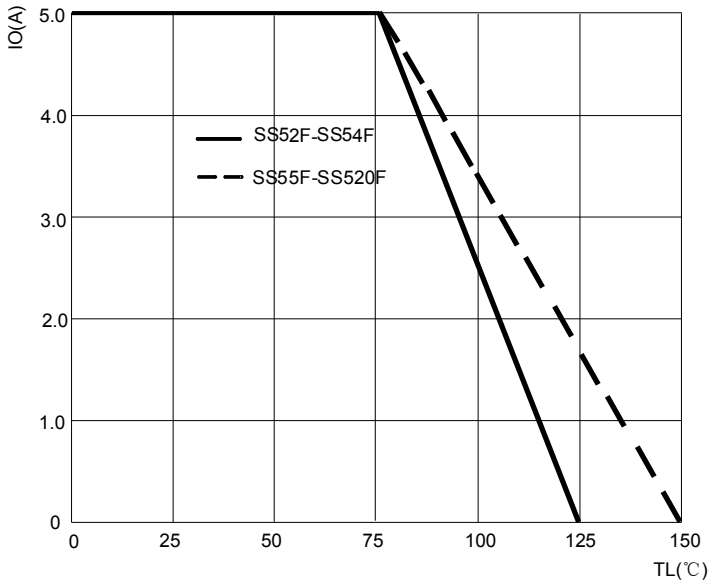


FIG2:Surge Forward Current Capadility

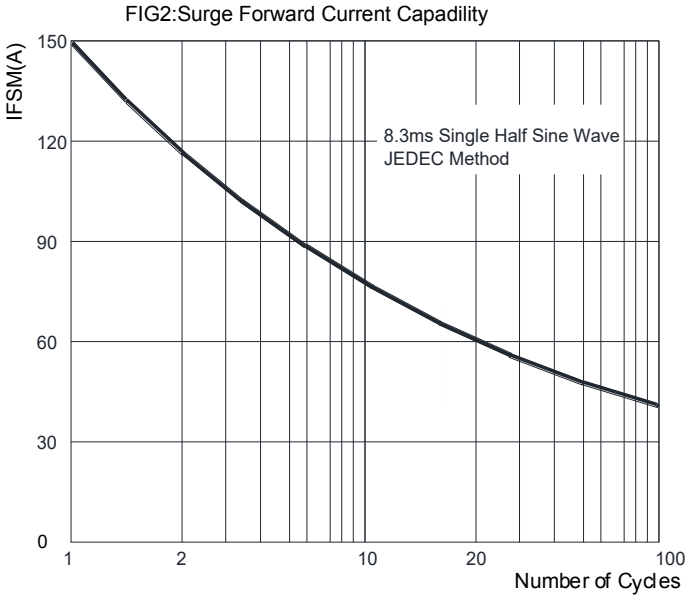


FIG.3: TYPICAL FORWARD CHARACTERISTICS

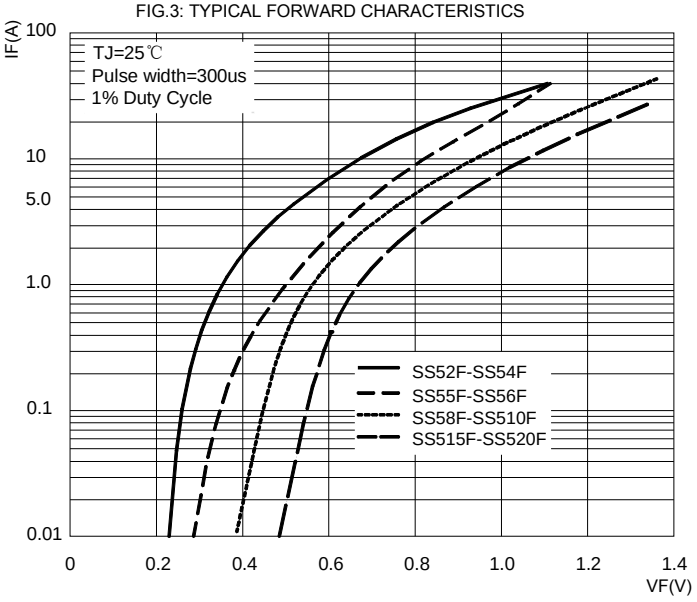
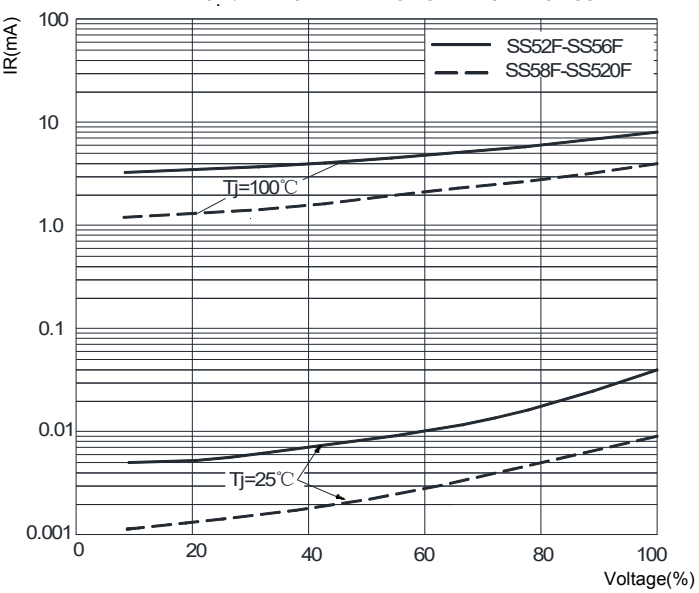
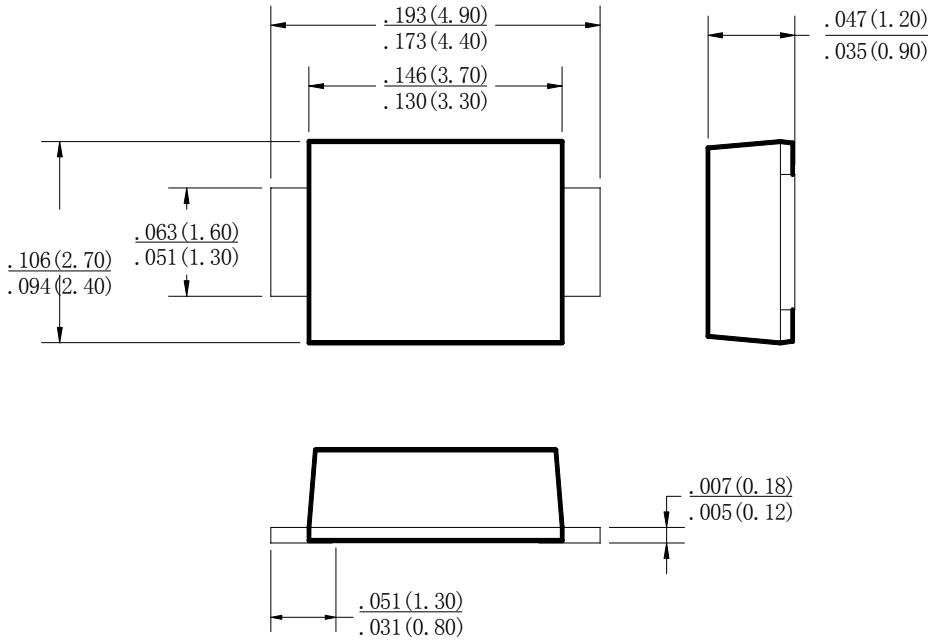


FIG.4：TYPICAL REVERSE CHARACTERISTICS

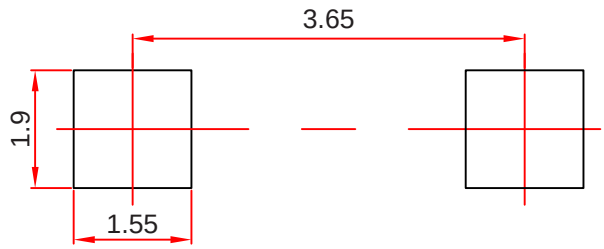


SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAF Suggested Pad Layout



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

Ordering Information

Part Number	Package	Shipping Quantity
SS52F-SS520F	SMAF	3000/tape&Reel

Marking Diagram

X:From 2 To 20

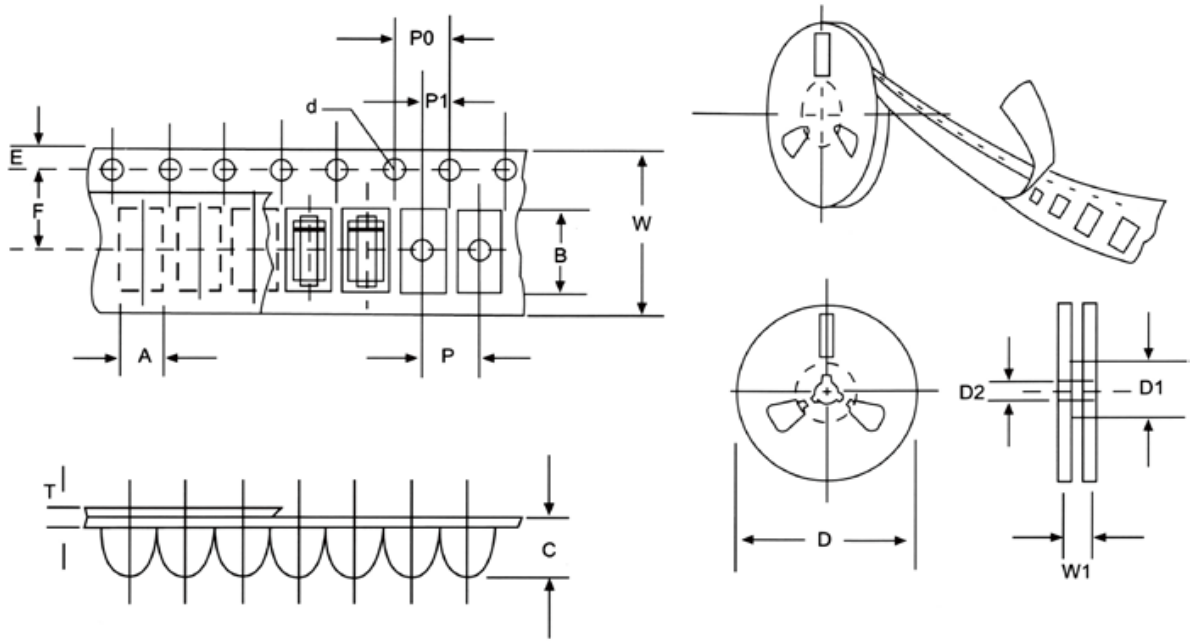


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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)
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.