

SMAF Plastic-Encapsulate Diodes

MURS220F Super Fast Recovery Rectifier Diodes

Features

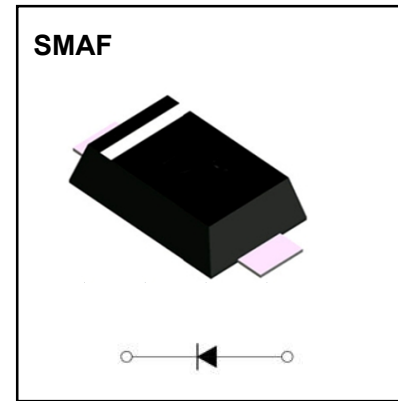
- $I_{F(AV)}$ 2A
- V_{RRM} 200V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- MURS220



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	Value
Repetitive Peak Reverse Voltage	V_{RRM}	V		200
Maximum RMS Voltage	V_{RMS}	V		140
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_a=120^{\circ}\text{C}$	2.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}\text{C}$	50
Operation Junction and Storage Temperature Range	T_J, T_{STG}	$^{\circ}\text{C}$		-55 ~ +150

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

Item	Symbol	Unit	Test Condition		Value
Peak Forward Voltage	V _F	V	I _F =2.0A		0.95
Reverse recovery time	t _{rr}	ns	I _F =0.5A, I _R =1.0A Irr=0.25A		25
Peak Reverse Current	I _{RRM1}	μA	V _{RM} =V _{RRM}	T _a =25 °C	50
	I _{RRM2}			T _a =100 °C	50
Thermal Resistance(Typical)	R _{θJ-A}	°C/W	Between junction and ambient		77 ¹⁾
	R _{θJ-L}		Between junction and terminal		24 ¹⁾
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		16

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on a 1.0" x 1.0" (25.4 mm x 25.4 mm) FR4 PCB, double sided copper ,with mini pad

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

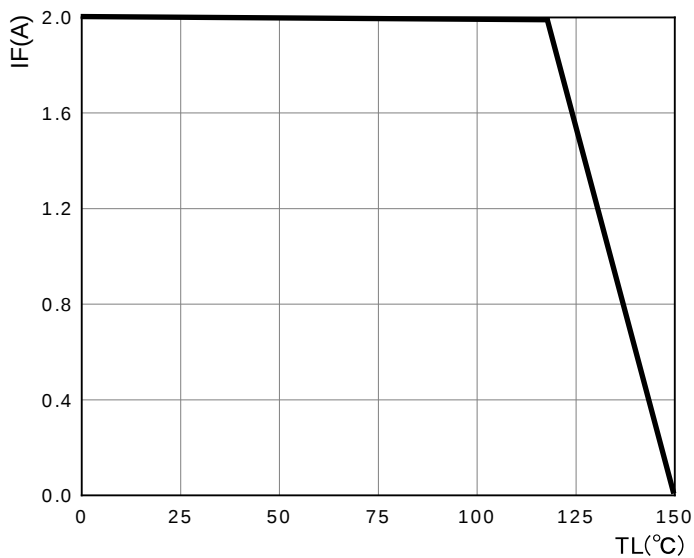


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

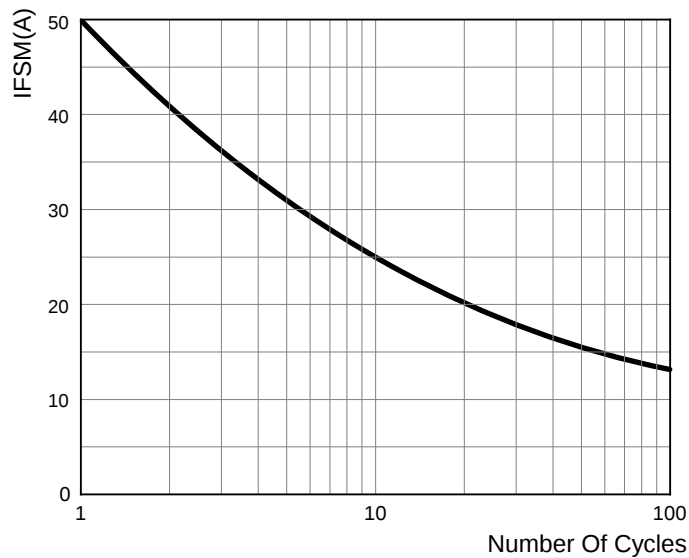


FIG.3 : TYPICAL FORWARD CHARACTERISTICS

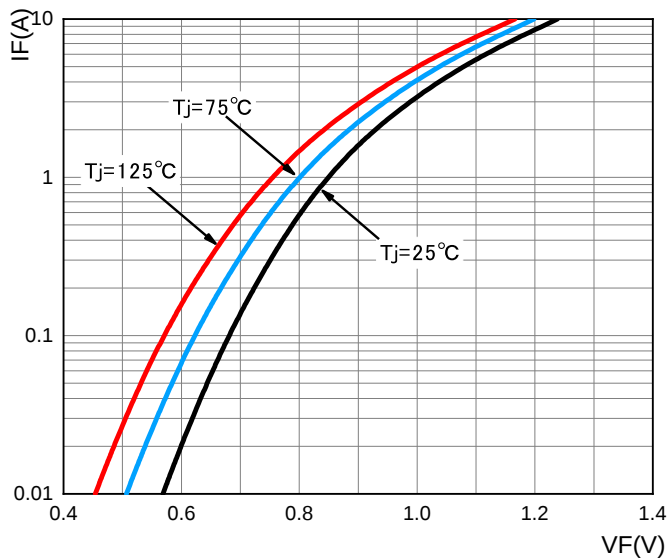
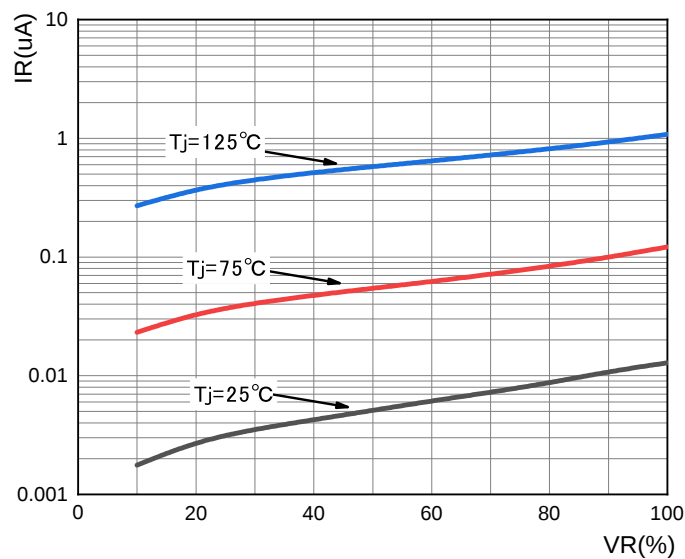
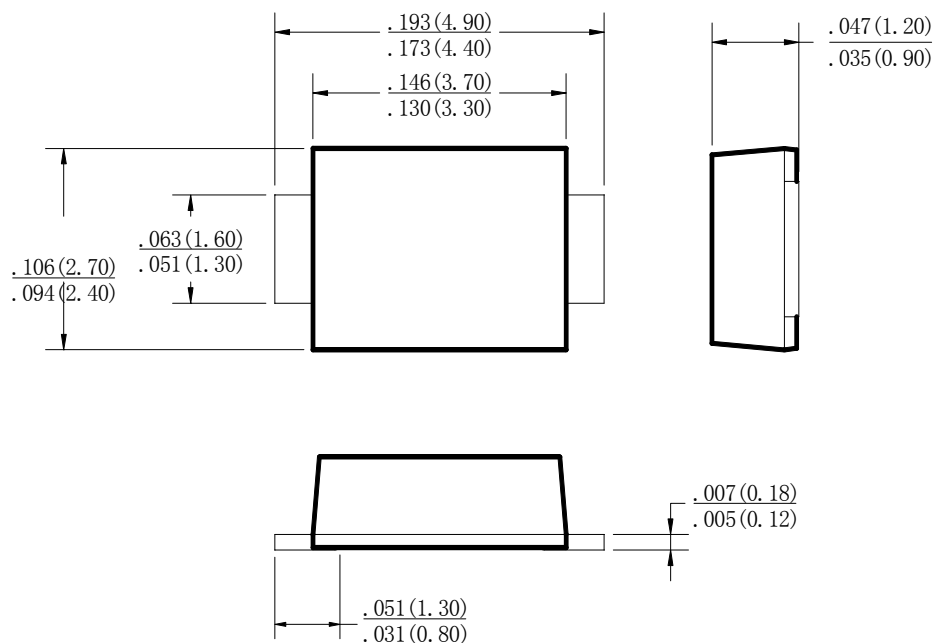


FIG.4: TYPICAL REVERSE CHARACTERISTICS

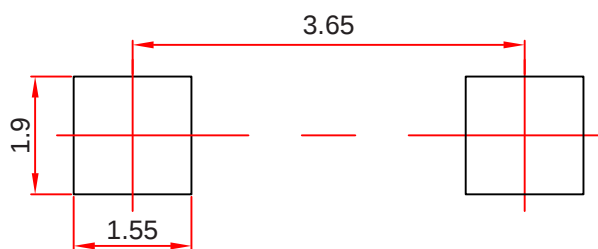


SMAF Package Outline Dimensions



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.

NOTICE

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

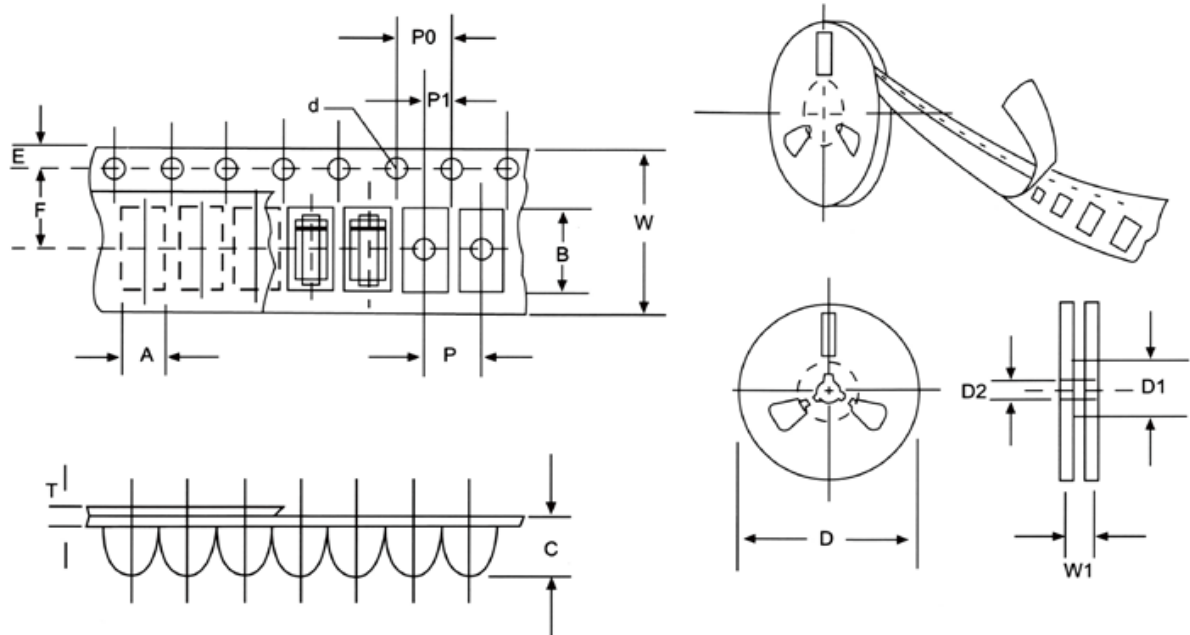


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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)
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.