

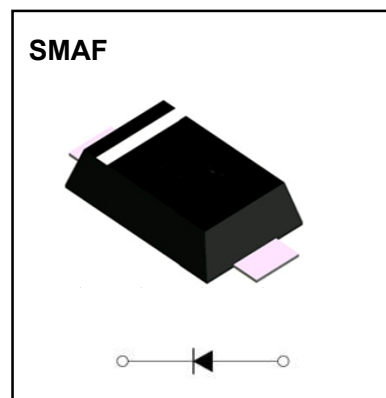
General Purpose Rectifier Diode

Features

- I_O 3A
- V_{RRM} 50V-1000V
- High surge current capability
- Glass passivated chip
- Polarity: Color band denotes cathode
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Expsemi electronics

Applications

- Rectifier



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	S3						
				AF	BF	DF	GF	JF	KF	MF
Repetitive Peak Reverse Voltage	V _{RRM}	V		50	100	200	400	600	800	1000
Maximum RMS Voltage	V _{RMS}	V		35	70	140	280	420	560	700
Average Forward Current	I _{F(AV)}	A	60Hz Half-sine wave, Resistance load, TL=110℃	3.0						
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave,1 cycle, Ta=25℃	45						
Junction Temperature	T _J	℃		-55 ~ +150						
Storage Temperature	T _{STG}	℃		-55 ~ +150						

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

Item	Symbol	Unit	Test Condition		Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=3.0A$		1.0
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$	5
	I_{RRM2}			$T_a=100^{\circ}C$	50
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^{\circ}C/W$	Between junction and ambient		50
	$R_{\theta J-L}$		Between junction and lead		16

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

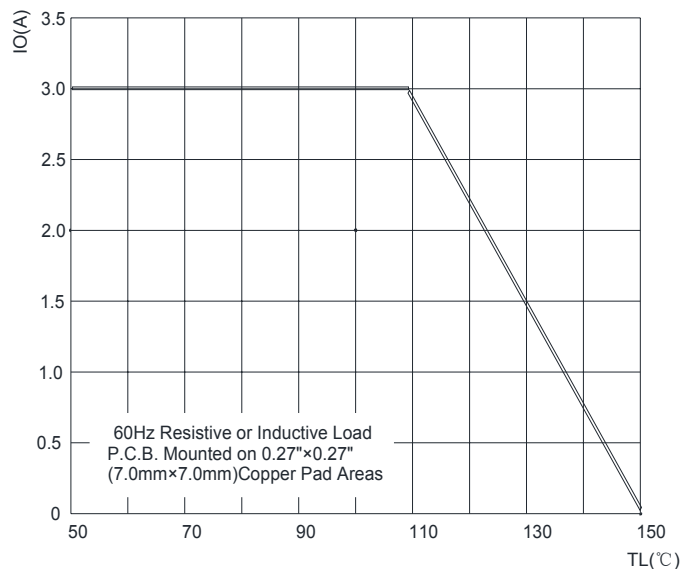


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

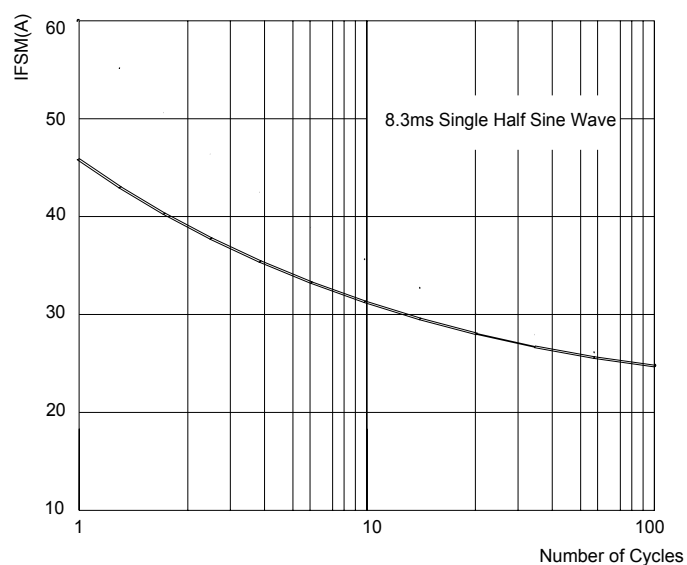


FIG.3: TYPICAL FORWARD CHARACTERISTICS

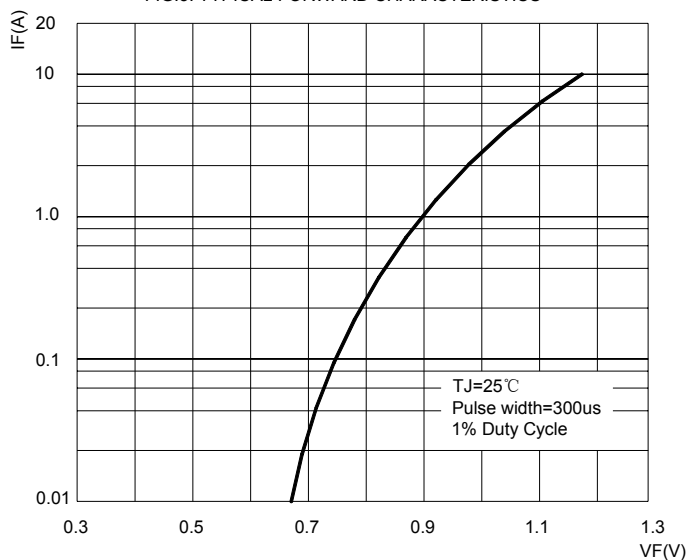
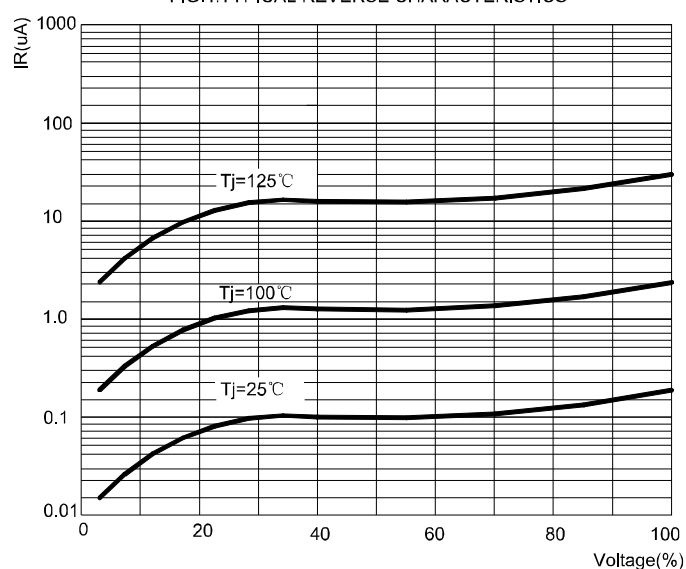
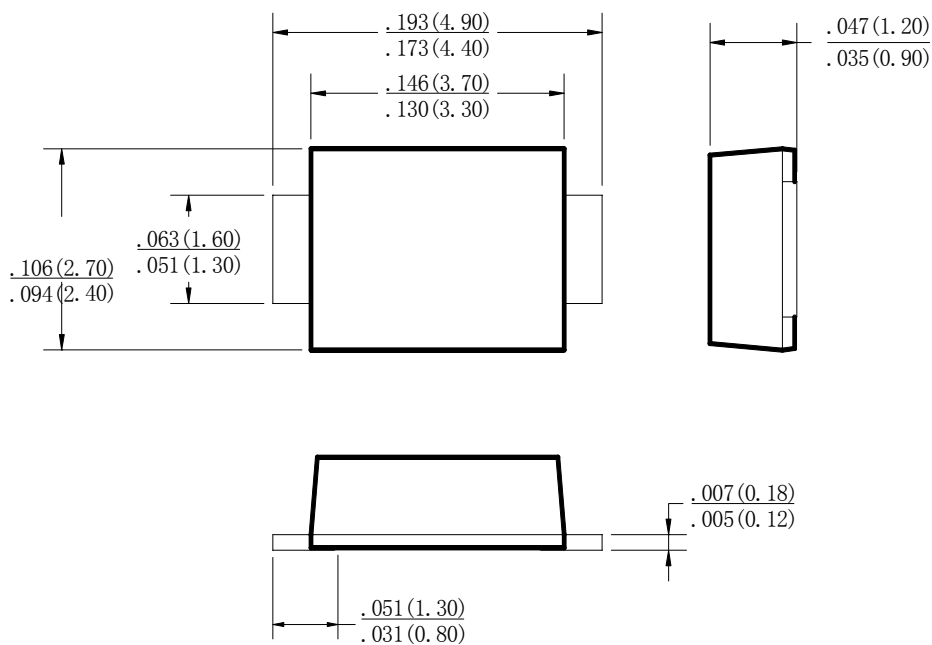


FIG.4: TYPICAL REVERSE CHARACTERISTICS

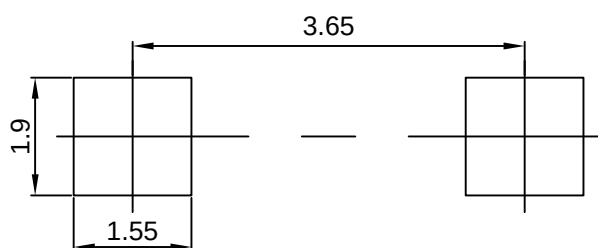


SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAF Suggested Pad Layout



Note:

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