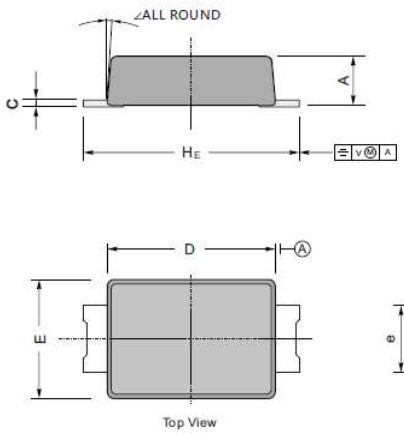
Surface Mount Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 3.0 Amperes

Features
- For surface mounted applications
- Glass passivated junction chip
- Low forward voltage drop
- Easy pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives
- High temperature soldering : 260℃ /10 seconds at terminals

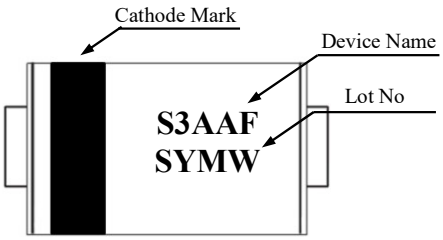
Mechanical Data
- Case : SMAF Molded plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.027gram

SMAF



UNIT		A	C	D	E	e	g	HE	b	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	1.05	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	0.65	
mil	max	47	7.9	146	106	63	47	193	41	
	min	35	4.7	130	94	51	31	173	26	

Marking



Maximum Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified
Single phase half wave 60 Hz, resistive or inductive load
For capacitive load, derate current by 20%

Parameter	Symbol	S3AAF	S3BAF	S3DAF	S3GAF	S3JAF	S3KAF	S3MAF	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current	$I_F(AV)$	3.0							A	
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	100							A	
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	1.15							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10.0							uA	Ta=25℃
		250							uA	Ta=125℃
Maximum Reverse Recovery Time	trr	2.5							us	Note 1
Typical Junction Capacitance	C_J	60							pF	Note 2
Operation Junction Temperature Range	T_J	-55 to +150							℃	
Storage Temperature Range	T_{STG}	-55 to +150							℃	

Note 1. Reverse Recovery Time Test Conditions : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

Ratings and Characteristics Curves (Ta=25℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

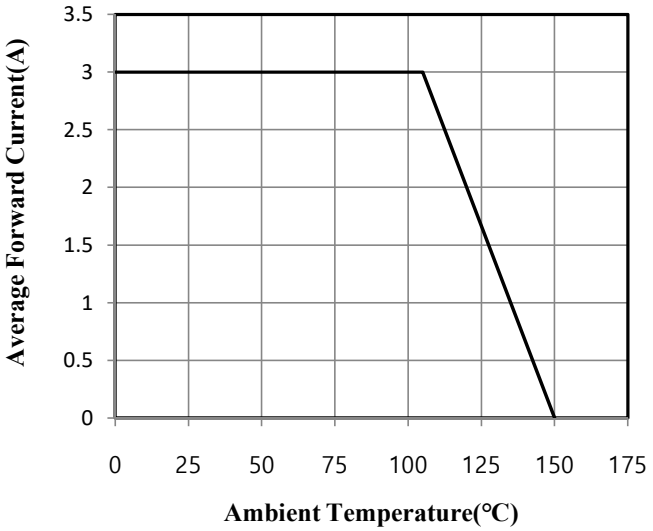


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

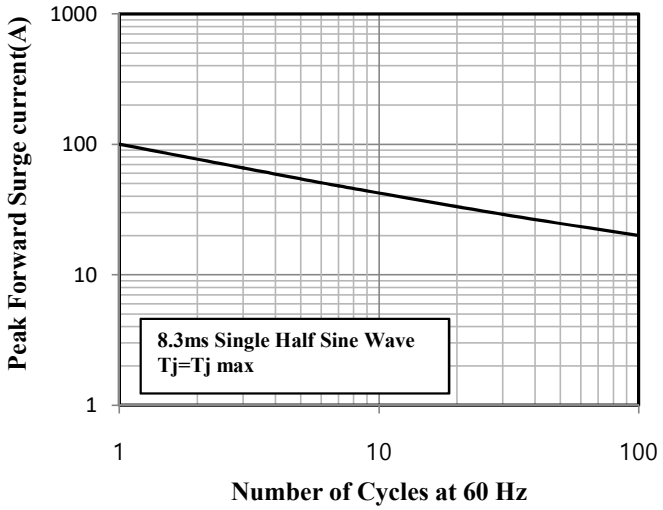


Fig.3 Typical Instantaneous Forward Characteristics

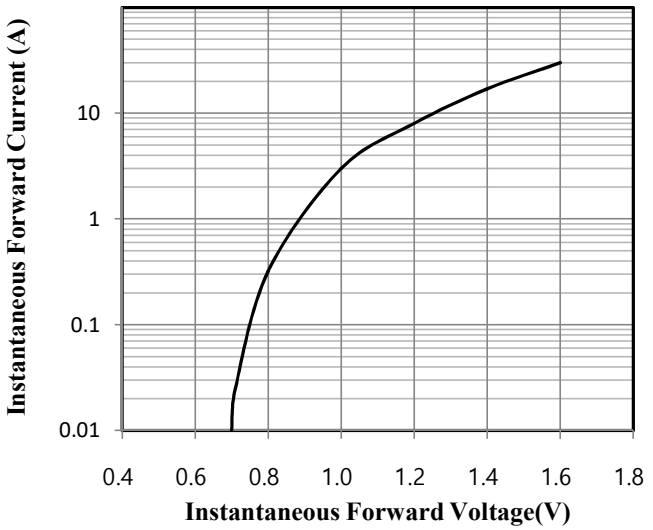


Fig.4 Typical Junction Capacitance

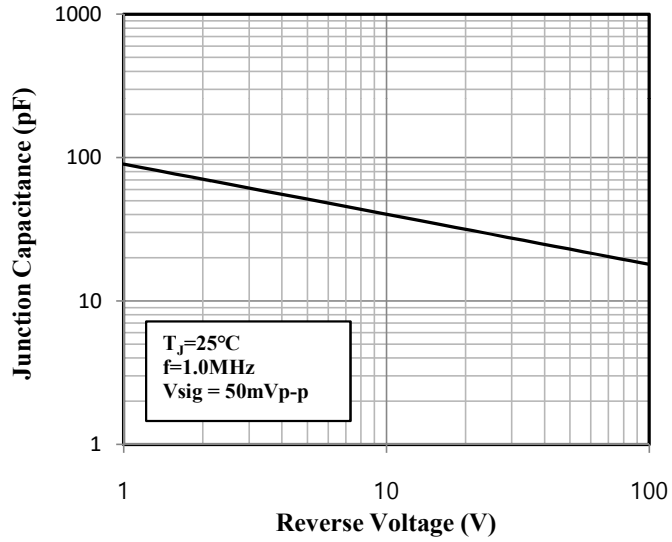


Fig.5 Typical Reverse Charateristics