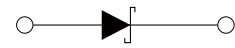


FEATURES

- Low Power Loss High Efficiency
- Ideal For Automated Placement
- Guard Ring For Over-voltage Protection
- High Surge Current Capability



SMAF



Schematic Symbol

MECHANICAL DATA

- Case: DO-214AC (SMA)
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	SS 32AF	SS 33AF	SS 34AF	SS 35AF	SS 36AF	SS 39AF	SS 310AF	SS 315AF	SS 320AF	Unit
Marking		SS32	SS33	SS34	SS35	SS36	SS39	SS310	SS315	SS320	
Repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90	100	150	200	V
Reverse voltage,total RMS Value	V _{RMS}	14	21	28	35	42	63	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90	100	150	200	V
Maximum average forward rectified current at T _L =100°C	I _{F(AV)}	3.0									A
Surge Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	70									A
Forward voltage per diode ⁽¹⁾ I _F =3A,T _J =25°C		V _F	0.55			0.72		0.85		0.95	V
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C	I _R	0.5								mA
	T _A =100°C		20								mA
Critical rate of rise of off-state voltage		dV/dt	10,000								V/μs
Operating junction temperature range		T _J	-55 to +150								°C
Storage temperature range		T _{STG}	-55 to +150								°C

Notes:

- pulse test with $PW=0.3\text{ms}$
- pulse test with $PW=30\text{ms}$

THERMAL PERFORMANCE

Parameter	Symbol	TYP.	Unit
Junction to Ambient Thermal Resistance	$R_{\theta JA}$	66	$^{\circ}\text{C}/\text{W}$
Junction to Ambient Thermal Resistance	$R_{\theta JL}$	25	$^{\circ}\text{C}/\text{W}$

CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

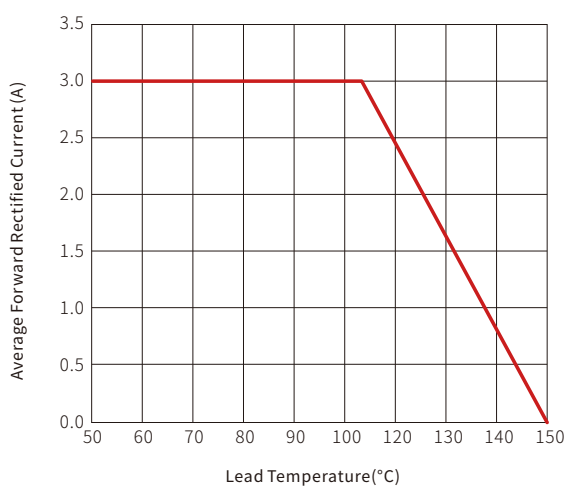


Fig. 2-Typical Junction Capacitance

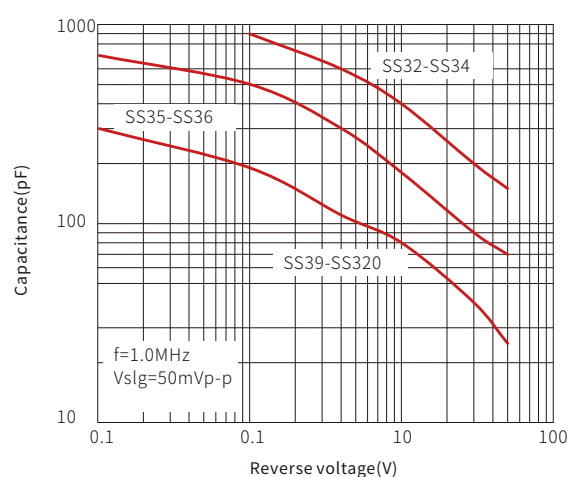


Fig. 3-Typical Reverse Characteristics

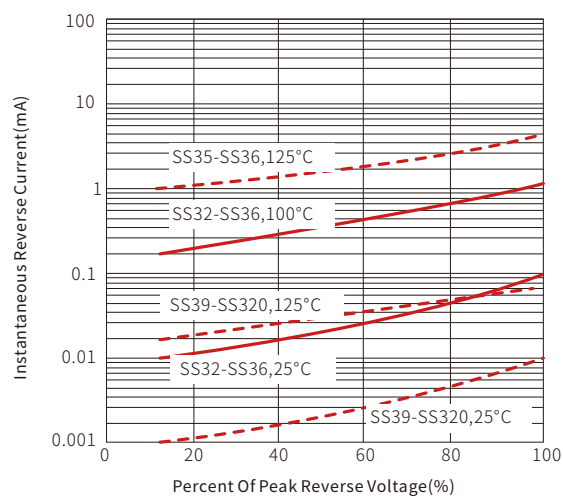


Fig. 4-Typical Forward Characteristics

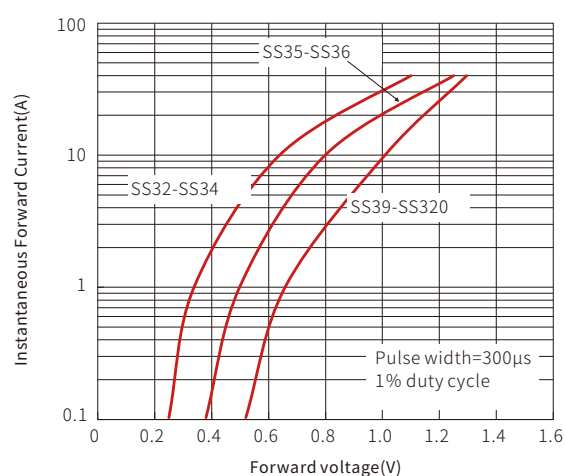
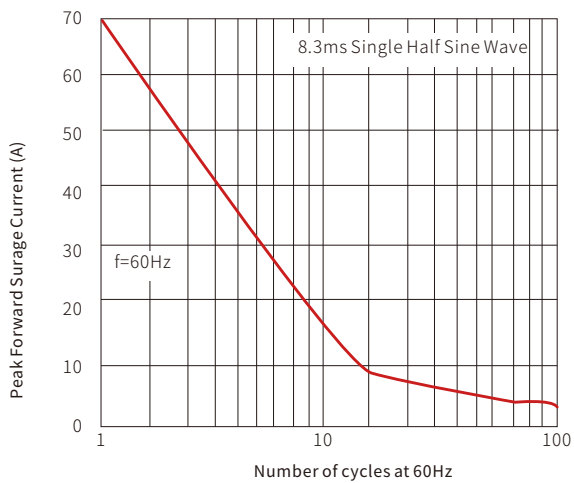
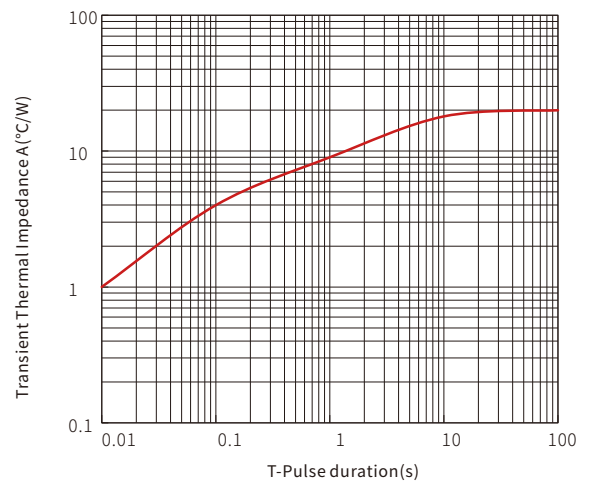
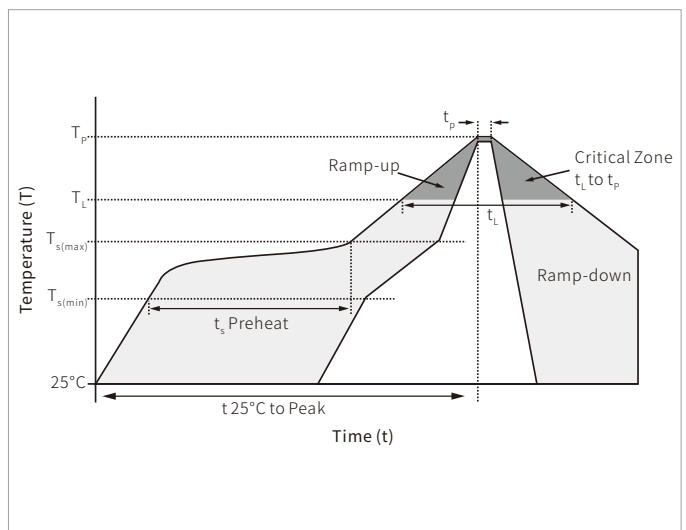


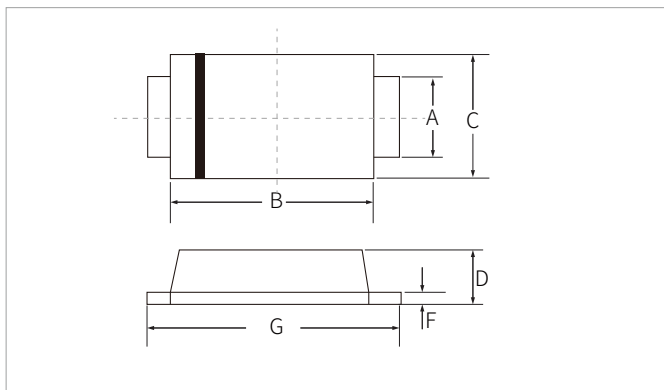
Fig. 5-Maximum Non-repetitive Forward Surge Current

Fig. 6-Typical Transient Thermal Characteristics


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

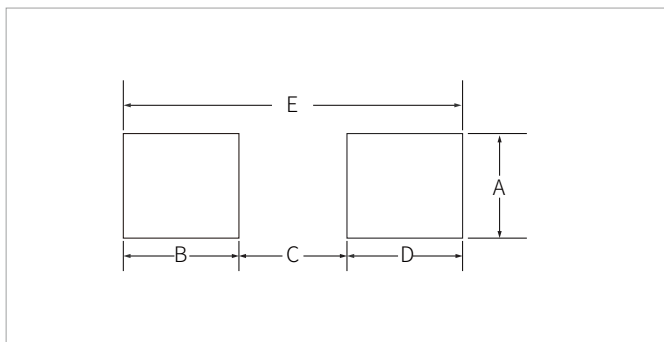


SMAF PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.35	1.60	0.053	0.063
B	3.40	3.80	0.134	0.145
C	2.40	2.80	0.094	0.110
D	0.95	1.45	0.037	0.057
F	0.15	0.22	0.006	0.009
G	4.40	4.80	0.173	0.189

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.70	-	0.067	-
B	2.50	-	0.098	-
C	-	1.5	-	0.059
D	2.50	-	0.098	-
E	6.50REF		0.256REF	

ORDERING INFORMATION

Part Number	Package	QTY/Reel	Reel Size
SS32AF-SS320AF	SMAF	5000PCS	13"

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By QR Code

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