SS32(F)~SS320(F)

3.0A Schottky rectifier

Features

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

SMAF

Mechanical Date

- **Case:** SMAF molded plastic
- **Terminals:** Solder plated, solderable per JESD22-B102D
- **Polarity:** Laser band denotes cathode end

Major Ratings and Characteristics

$I_{F(AV)}$	**3.0A**
V_{RRM}	**20 V to 200 V**
I_{FSM}	**100A**
V_F	**0.50V, 0.55V, 0.70V, 0.85V，0.95V**
T_j **max.**	**125 °C**

Maximum Ratings & Thermal Characteristics

(T_A = 25 °C unless otherwise noted)

Items	Symbol	SS32	SS33	SS34	SS35	SS36	SS38	SS310	SS315	SS320	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	3									A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	100									A
Voltage rate of change (rated V_R)	dv/dt	10000									V/μs
Thermal resistance from junction to lead (1)	$R_{\theta JL}$	25									℃/W
Operating junction and storage temperature range	T_J, T_{STG}	–65 to +125									℃

Note 1: Mounted on P.C.B. with 0.28 x 0.28” (7.0 x 7.0mm) copper pad areas.

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	SS32	SS33~34	SS35~36	SS38~310	SS315~320	UNIT
Instantaneous forward voltage	I_F=3.0A(2)		V_F	0.50	0.55	0.70	0.85	0.95	V
Reverse current	V_R=V_{DC}	T_j=25℃	I_R	0.5					mA
		T_j=100℃		5.0					

Note 2: Pulse test:300μs pulse width,1% duty cycle.

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

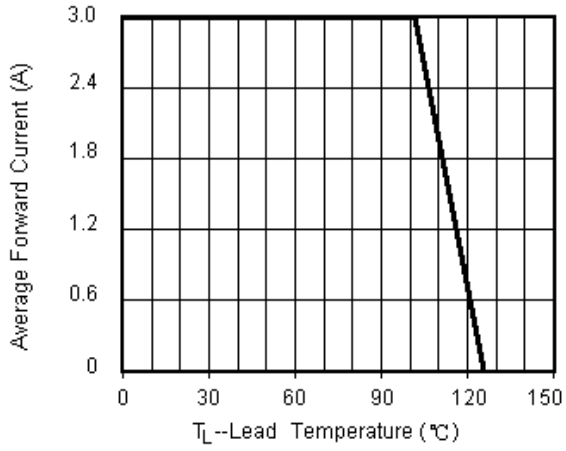


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

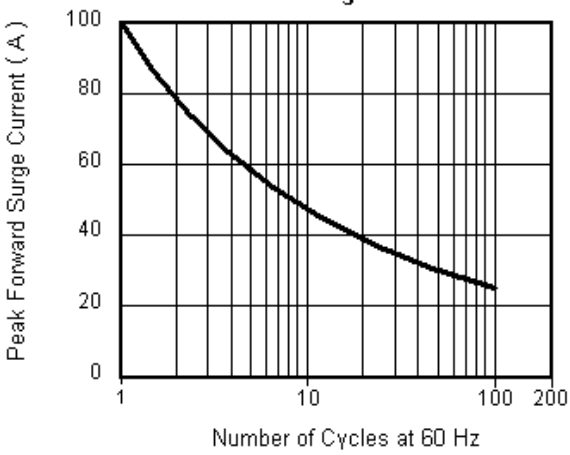


Fig.3 Typical Instantaneous Forward Characteristics

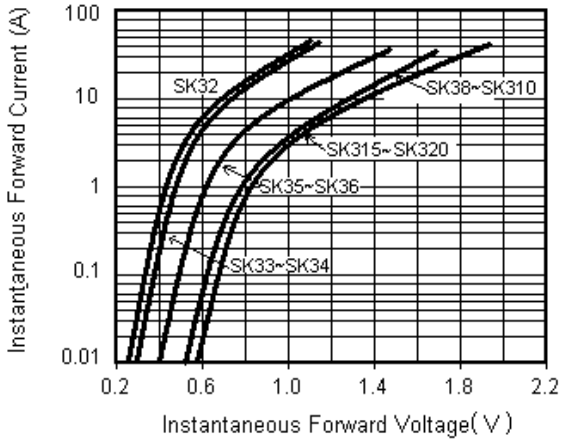
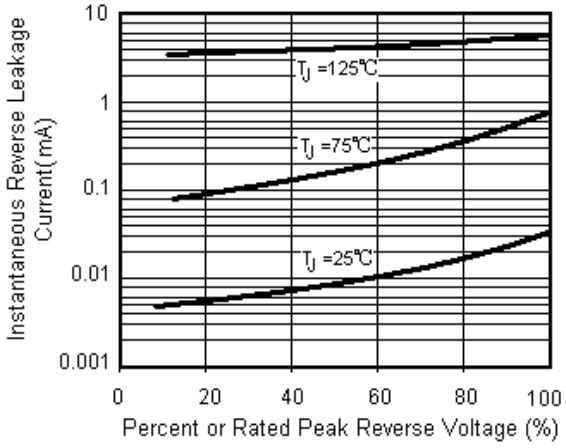
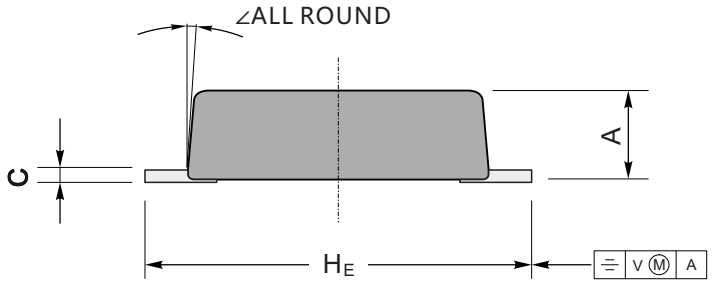
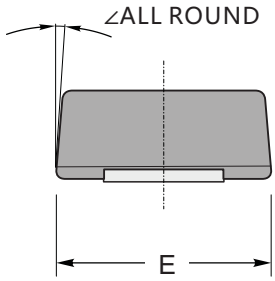


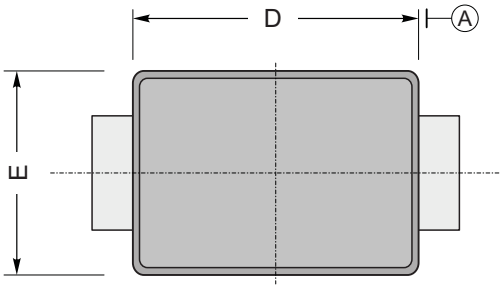
Fig.4 Typical Reverse Leakage Characteristics



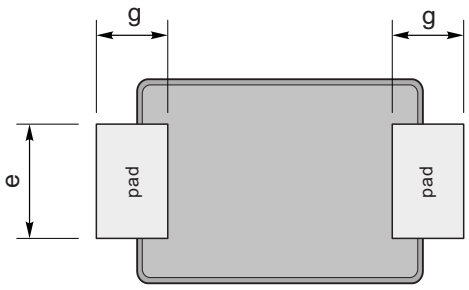
Package Outline







Top View



Bottom View

UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

Notice

- Product is intended for use in general electronics applications.
- Product should be worked less than the ratings; if exceeded, may cause permanent damage.or introduce latent failure mechanisms.
- The absolute maximum ratings are rated values and must not be exceeded during operation. The following are the general derating methods you design a circuit with a device.
  $I_{F(AV)}$: We recommend that the worst case current be no greater than 80% .
  T_J : Derate this rating when using a device in order to ensure high reliability. We recommend that the device be used at a T_J of below 100°C.