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SK32 thru SK320 SMC

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

Mechanical Date

- Case: JEDEC DO-214AB molded plastic
- Terminals: Solder plated, solderable per JESD22-B102D
- Polarity: Laser band denotes cathode end

DO-214AB (SMC)

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

(TA = 25 °C unless otherwise noted)

Items	Symbol	SK32	SK33	SK34	SK35	SK36	SK38	SK310	SK315	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	$I_{F(AV)}$	3.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100									A
Voltage rate of change (rated VR)	dv/dt	10000									V/μs
Thermal resistance from junction to lead [1]	$R_{θJL}$	20									°C/W
Operating junction and storage temperature range	T_J，T_{STG}	-65 TO +125						-65 TO +150			°C

Note 1: Mounted on P.C.B. with 0.55" x 0.55" (14.0 x 14.0mm) copper pad areas.

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

Items	Test conditions		Symbol	SK32	SK33～34	SK35～36	SK38～310	SK315～320	UNIT
Instantaneous forward voltage	IF=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.

Typical Characteristics

Fig.1 Forward current derating curve
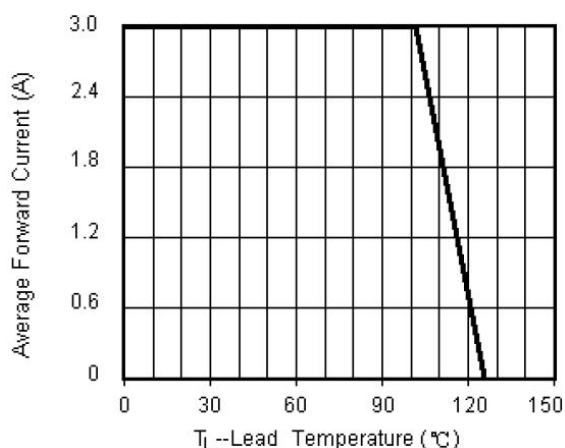
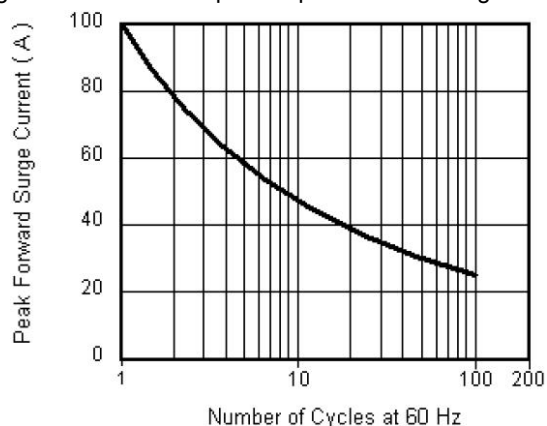Fig.2 Maximum non-repetitive peak forward surge current
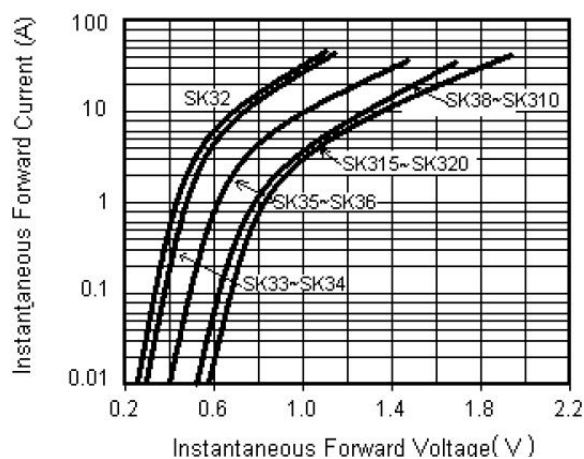

Fig.3 Typical instantaneous forward characteristics
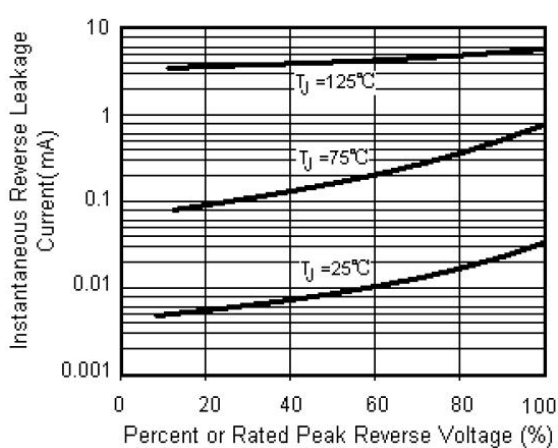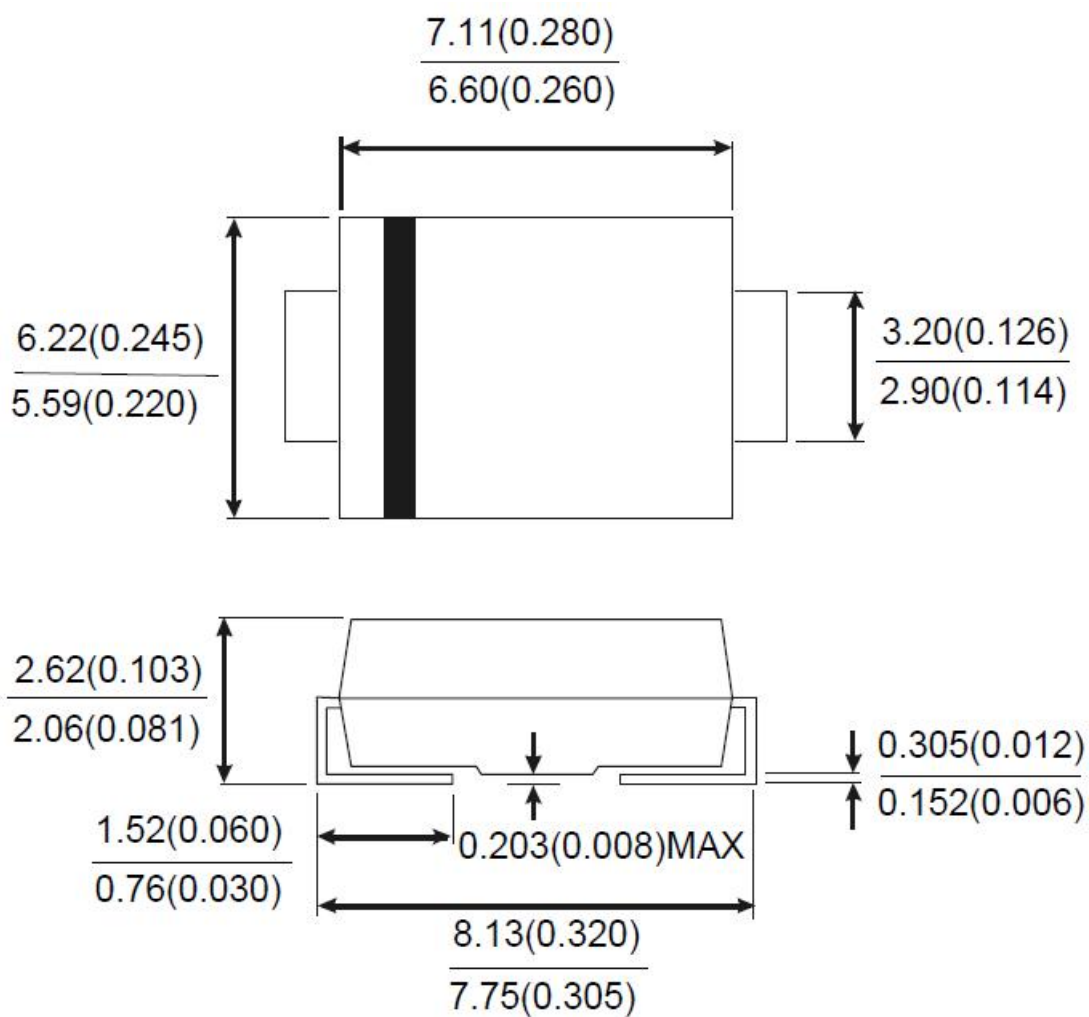

Fig.4 Typical reverse leakage characteristics

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Package Outline(SMC DO-214AB)

7.11(0.280)
6.60(0.260)

6.22(0.245)
5.59(0.220)

3.20(0.126)
2.90(0.114)

2.62(0.103)
2.06(0.081)

0.305(0.012)
0.152(0.006)

1.52(0.060)
0.76(0.030)

0.203(0.008)MAX

8.13(0.320)
7.75(0.305)

Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

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