

- High surge current capability
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



DO-214AA (SMB)

MECHANICAL DATA

Case: DO-214AA (SMB)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight: 0.1 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	SK 52B	SK 53B	SK 54B	SK 55B	SK 56B	SK 59B	5	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90		
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	63		
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90		
Maximum average forward rectified current	I _{F(AV)}	5							
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	120							
Maximum instantaneous forward voltage (Note 1) @ 5 A	V _F	0.5		0.75		0.85			
Maximum reverse current @ rated VR T _J =25 °C T _J =100 °C T _J =125 °C	I _R	0.5							
		20		10					
		-		-					
Voltage rate of change (Rated V _R)	dV/dt	10000							
Typical thermal resistance	R _{θJL}	19							
	R _{θJA}	60							
Operating junction temperature range	T _J	- 55 to +150							
Storage temperature range	T _{STG}	- 55 to +150							

Note 1: Pulse test with PW=300µs, 1% duty cycle

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESC
SK56B R5	SK56B		R5		
SK56B R5G	SK56B		R5	G	Green
SK56BHR5	SK56B	H	R5		AEC-Q

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

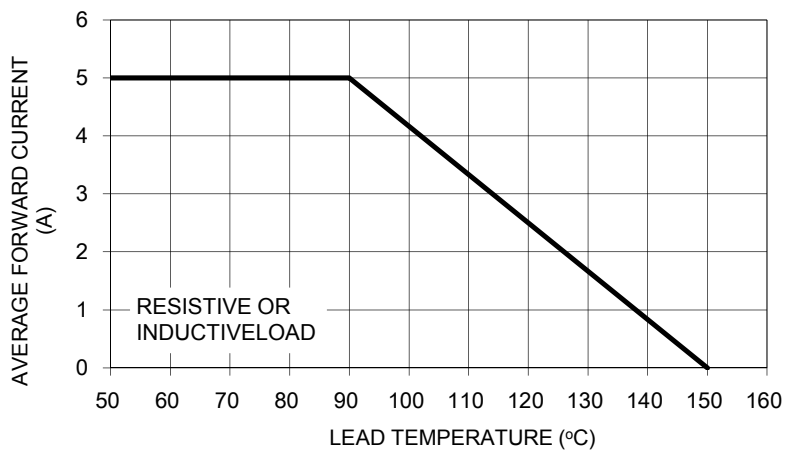


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

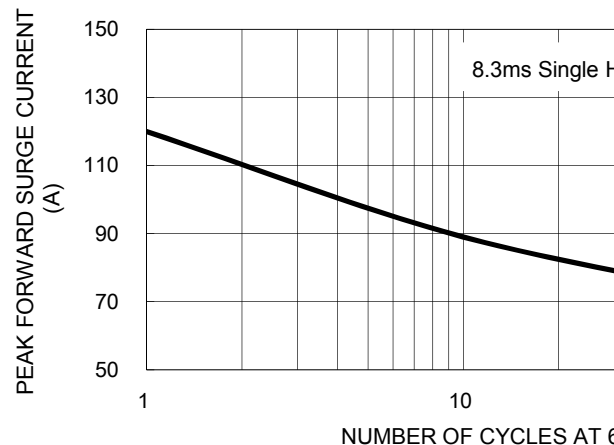


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

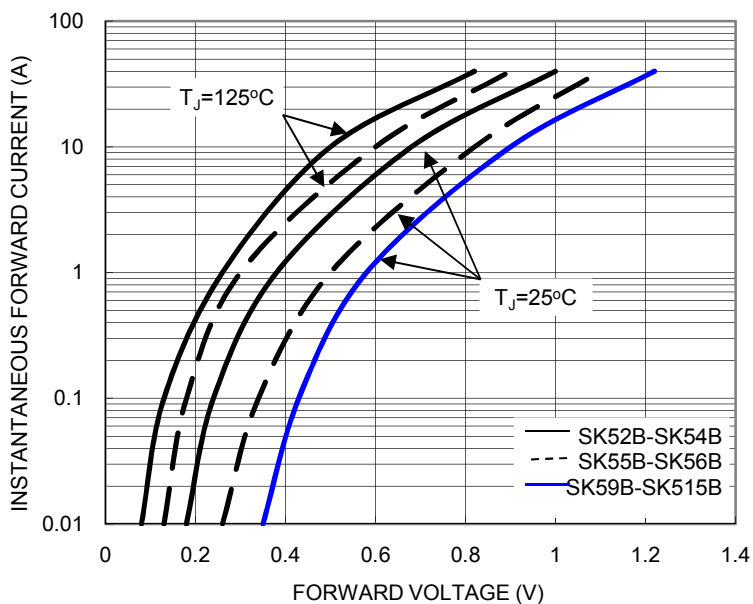
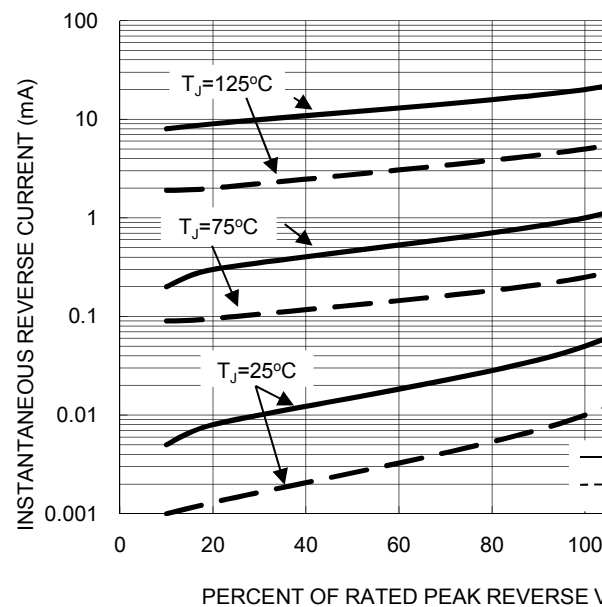
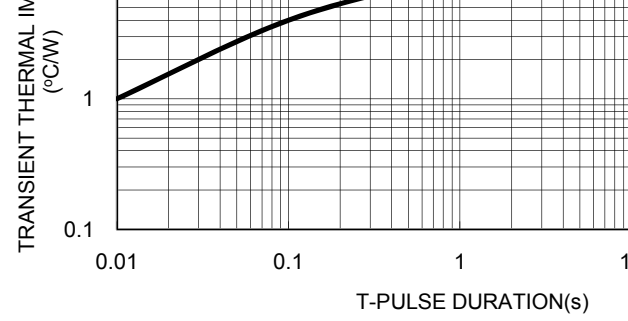
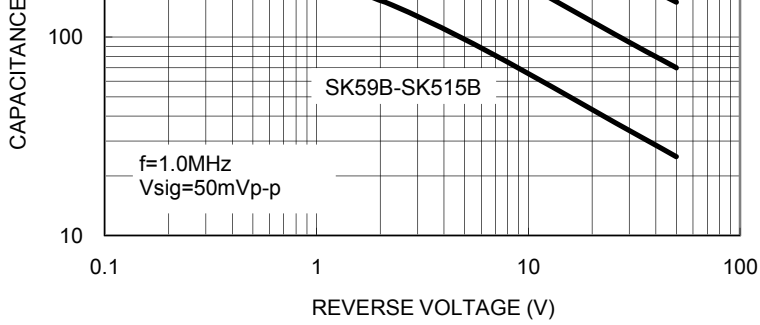


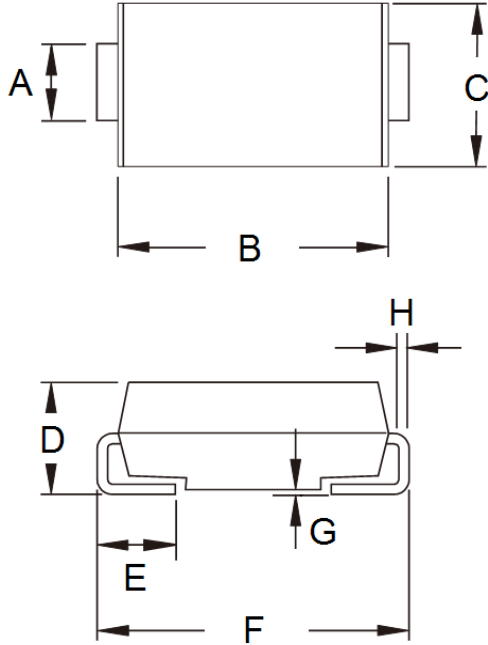
FIG. 4 TYPICAL REVERSE CHARACTERISTICS





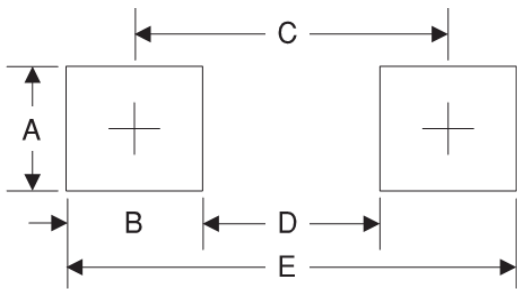
PACKAGE OUTLINE DIMENSIONS

DO-214AA (SMB)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.95	2.10	0.077	0.083
B	4.25	4.75	0.167	0.187
C	3.48	3.73	0.137	0.147
D	1.99	2.61	0.078	0.103
E	0.90	1.41	0.035	0.056
F	5.10	5.30	0.201	0.209
G	0.10	0.20	0.004	0.008
H	0.15	0.31	0.006	0.012

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	2.3	0.091
B	2.5	0.098
C	4.3	0.169
D	1.8	0.071
E	6.8	0.268

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YW = Date Code
- F = Factory Code

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