

- 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-214AB (SMC)

MECHANICAL DATA

Case: DO-214AB (SMC)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - 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: 0.21 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	SK 82C	SK 83C	SK 84C	SK 85C	SK 86C
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60
Maximum RMS voltage	V_{RMS}	14	21	28	35	42
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60
Maximum average forward rectified current	$I_{F(AV)}$	8				
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150				
Maximum instantaneous forward voltage (Note 1) $I_F=8\text{ A}$	V_F	0.55			0.75	
Maximum reverse current @ rated VR $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R	0.5				
		15			10	
Voltage rate of change (Rated V_R)	dV/dt	10000				
Typical thermal resistance	$R_{\theta JA}$	20				
Operating junction temperature range	T_J	-55 to +125			-55 to +150	
Storage temperature range	T_{STG}	- 55 to +150				

Note 1: Pulse test with $PW=300\mu\text{s}$, 1% duty cycle

Document Number: DS_D1309051

Note 1: "xx" defines voltage from 20V (SK82C) to 100V (SK810C)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESC
SK86C R7	SK86C		R7		
SK86C R7G	SK86C		R7	G	Green
SK86CHR7	SK86C	H	R7		AEC-Q

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

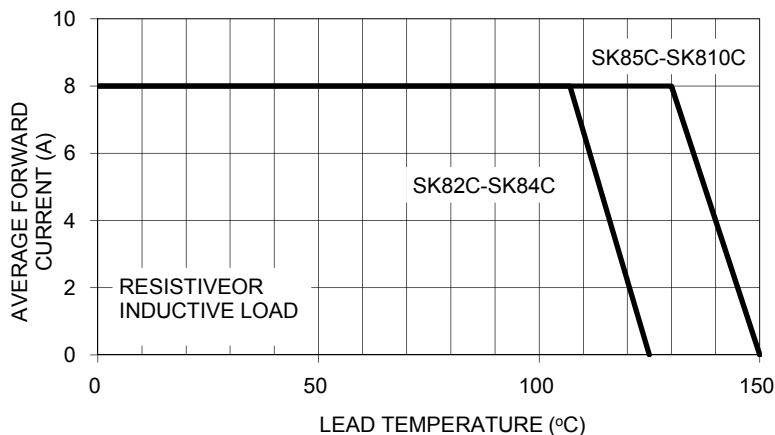


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

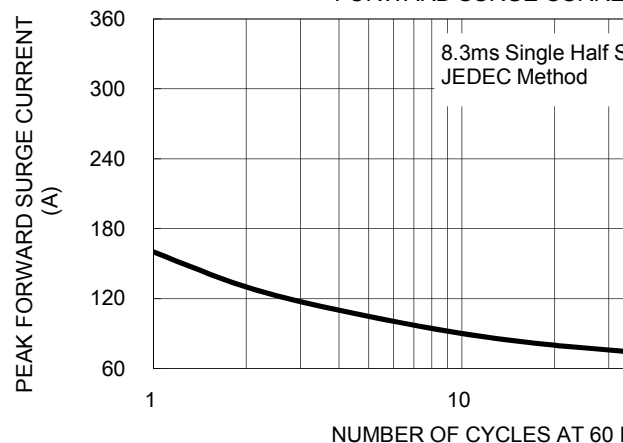


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

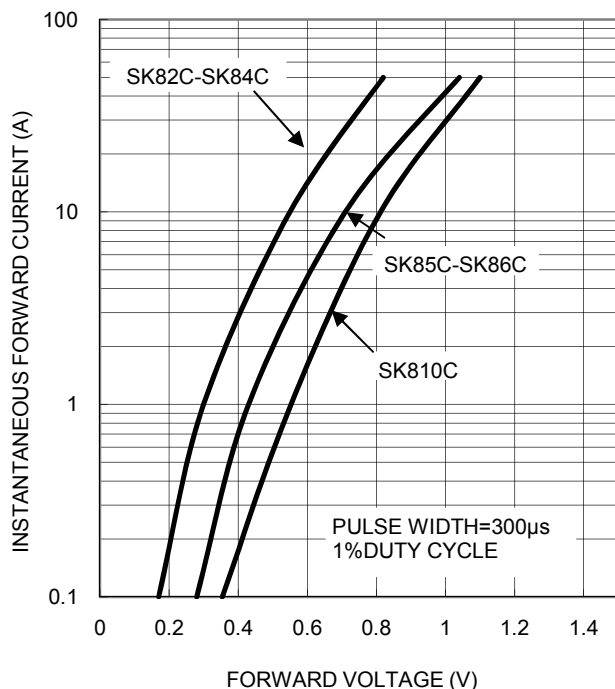
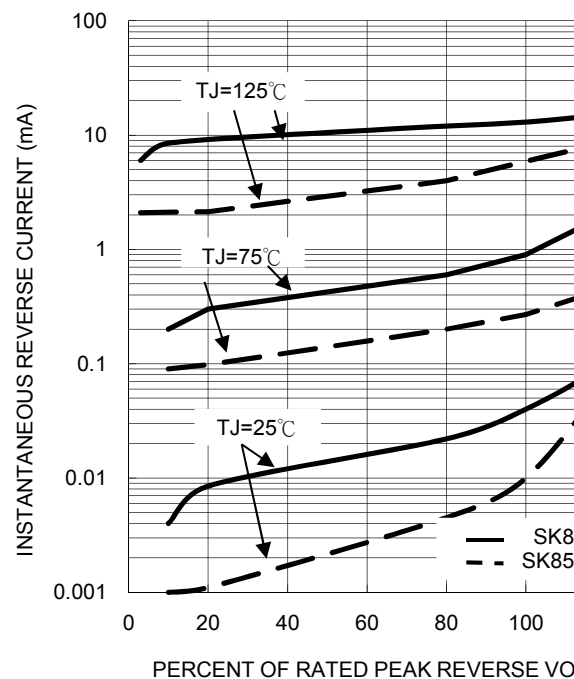
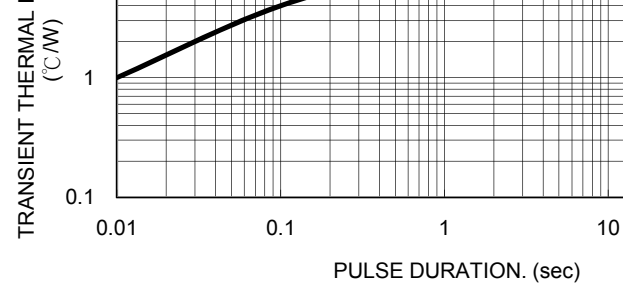
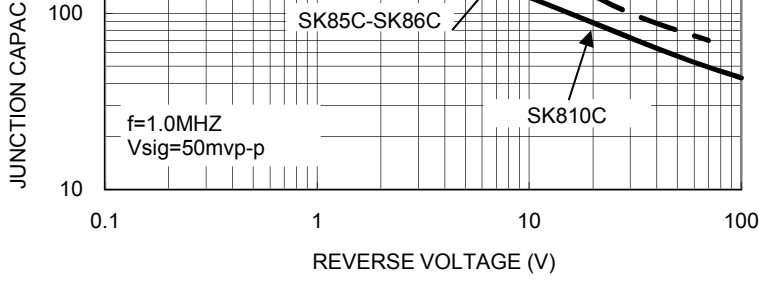


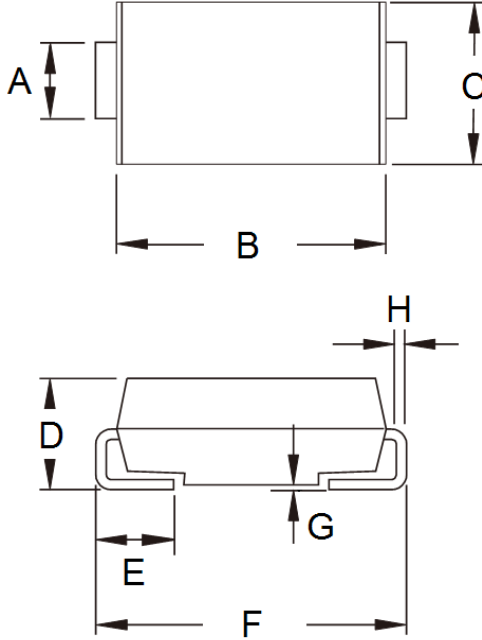
FIG. 4- TYPICAL REVERSE CHARACTERISTICS



Document Number: DS_D1309051

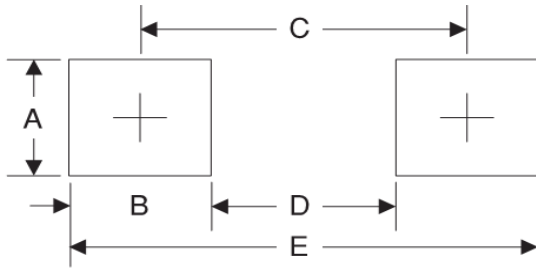


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.90	3.20	0.114	0.126
B	6.60	7.11	0.260	0.280
C	5.59	6.22	0.220	0.245
D	2.00	2.62	0.079	0.103
E	1.00	1.60	0.039	0.063
F	7.75	8.13	0.305	0.320
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	3.3	0.130
B	2.5	0.098
C	6.8	0.268
D	4.4	0.173
E	9.4	0.370

MARKING DIAGRAM



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

Document Number: DS_D1309051

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, of any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to indemnify TSC for any damages resulting from such improper use or sale.

Document Number: DS_D1309051

Ve