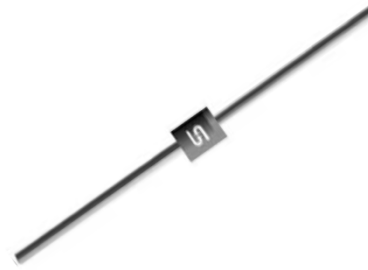


Schottky Barrier Rectifier

FEATURES

- Low forward voltage drop
- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



MECHANICAL DATA

Case: DO-201AD

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

Weight: 1.3 g (approximately)

DO-201AD

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)				
PARAMETER	SYMBOL	SK12H45	SK12H60	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	45	60	V
Maximum RMS voltage	V _{RMS}	31	42	V
Maximum DC blocking voltage	V _{DC}	45	60	V
Maximum average forward rectified current	I _{F(AV)}	12		A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	320		A
Maximum instantaneous forward voltage (Note 1) I _F = 12 A	V _F	0.55	0.70	V
Maximum DC reverse current @T _J =25 °C at rated DC blocking voltage @T _J =100 °C	I _R	0.15 20		mA
Typical thermal resistance	R _{θJC}	10		°C/W
	R _{θJA}	30		
Junction temperature range - in DC forward mode	T _J	<=200		°C
Storage temperature range	T _{STG}	- 50 to +175		°C

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

ORDERING INFORMATION					
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
SK12Hxx (Note 1)	Prefix "H"	A0	Suffix "G"	DO-201AD	500 / Ammo box
		R0		DO-201AD	1,250 / 13" Paper reel
		B0		DO-201AD	500 / Bulk packing
		X0		DO-201AD	Forming

Note 1: "xx" defines voltage from 45V (SK12H45) to 60V (SK12H60)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SK12H45 A0	SK12H45		A0		
SK12H45 A0G	SK12H45		A0	G	Green compound
SK12H45HA0	SK12H45	H	A0		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

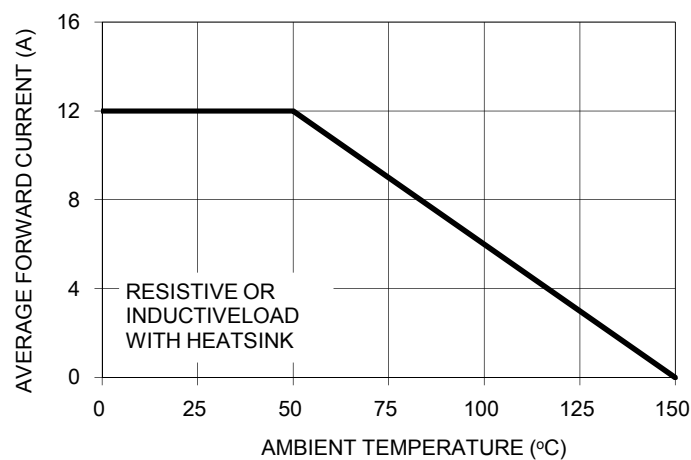


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

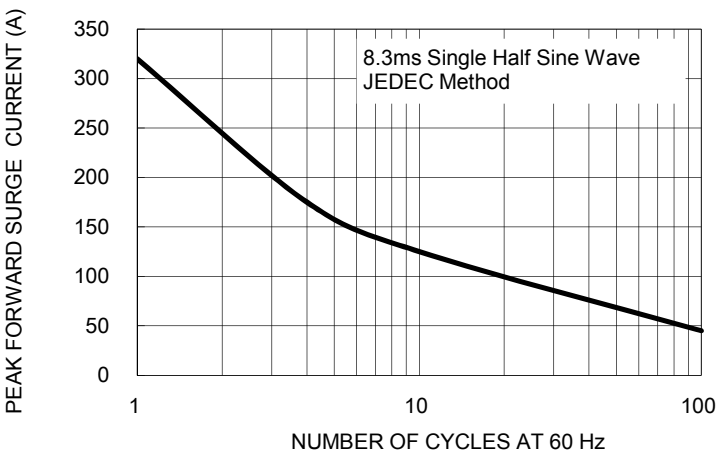


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

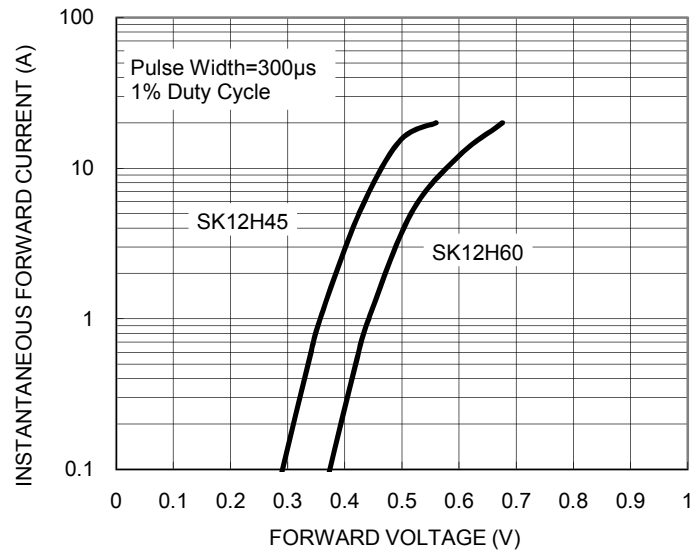


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

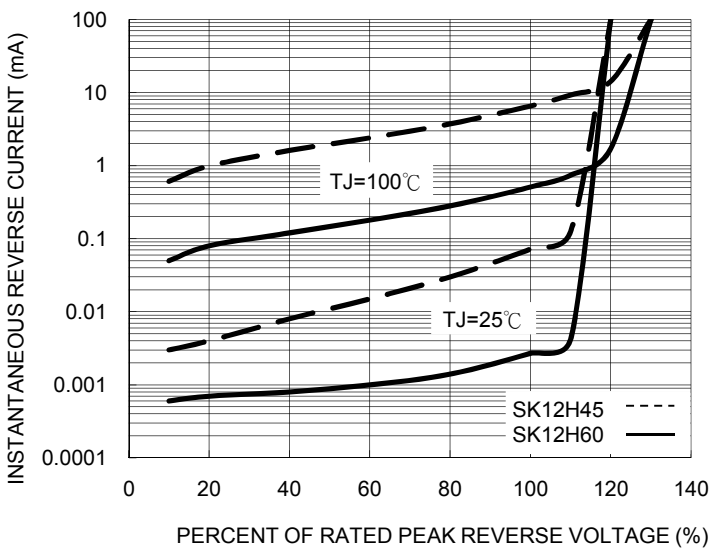


FIG. 5 TYPICAL JUNCTION CAPACITANCE

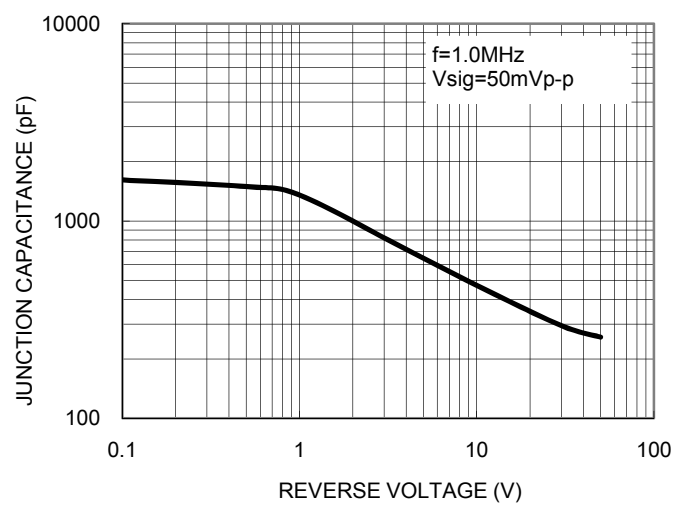
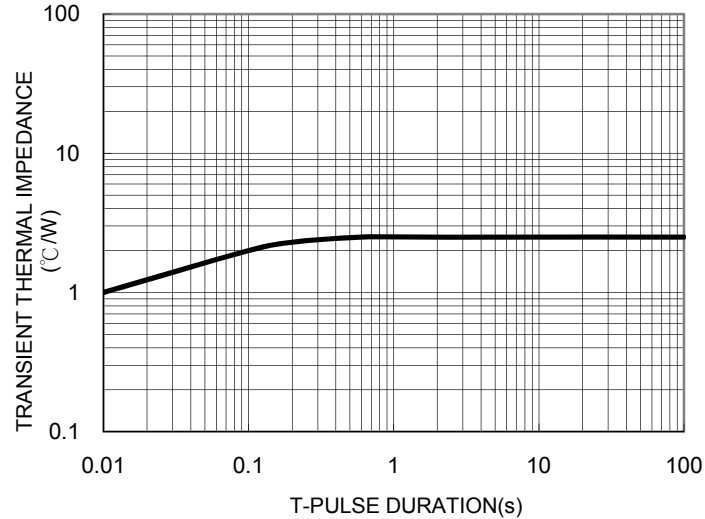
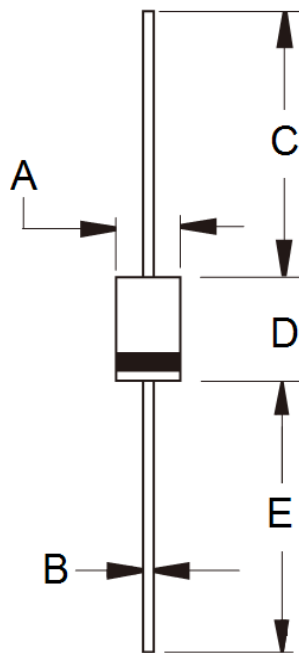


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	5.00	5.60	0.197	0.220
B	1.20	1.30	0.048	0.052
C	25.40	-	1.000	-
D	8.50	9.50	0.335	0.375
E	25.40	-	1.000	-

MARKING DIAGRAM

P/N

SGYWWF

P/N = Specific Device Code

G = Green Compound

YWW = Date Code

F = Factory Code

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