

Schottky Barrier Rectifier

FEATURES

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



R-6

MECHANICAL DATA

Case: R-6

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: 1.7 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)					
PARAMETER	SYMBOL	SR1502	SR1503	SR1504	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	V
Maximum RMS voltage	V _{RMS}	14	21	28	V
Maximum DC blocking voltage	V _{DC}	20	30	40	V
Maximum average forward rectified current	I _{F(AV)}	15			A
Repetitive peak forward current f > 15Hz	I _{FRM}	60			A
Peak forward surge current, 50/60 Hz single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300 / 340			A
Rating for fusing t < 10ms	I ² t	390			A ² s
Maximum instantaneous forward voltage @5 A (Note 1) @15 A	V _F	0.45 0.55			V
Maximum DC reverse current @T _J =25 °C at rated DC blocking voltage @T _J =100 °C	I _R	500 20			μA mA
Typical thermal resistance	R _{θJL}	2.5			°C/W
	R _{θJA}	25			
Junction temperature range - in DC forward mode	T _J	- 50 to +150 ≤200			°C
Storage temperature range	T _{STG}	- 55 to +175			°C

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

ORDERING INFORMATION					
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
SR15xx (Note 1)	Prefix "H"	A0	Suffix "G"	R-6	700 / Ammo box
		R0		R-6	1,000 / 13" Paper reel
		B0		R-6	400 / Bulk packing

Note 1: "xx" defines voltage from 20V (SR1502) to 40V (SR1504)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SR1504 A0	SR1504		A0		
SR1504 A0G	SR1504		A0	G	Green compound
SR1504HA0	SR1504	H	A0		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 RATED FORWARD CURRENT VS AMBIENT TEMP. CURVE

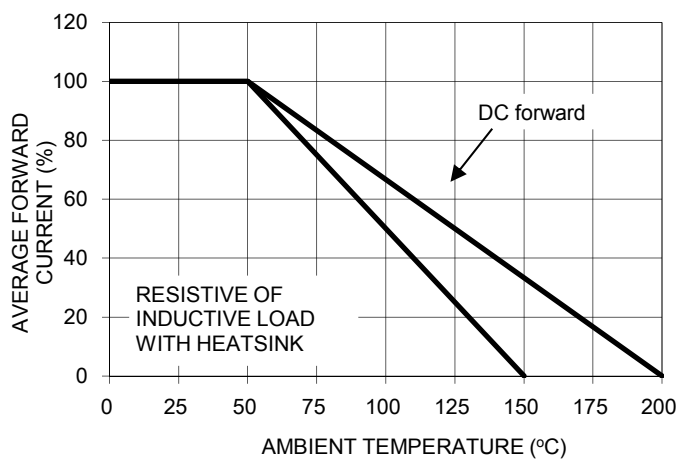


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

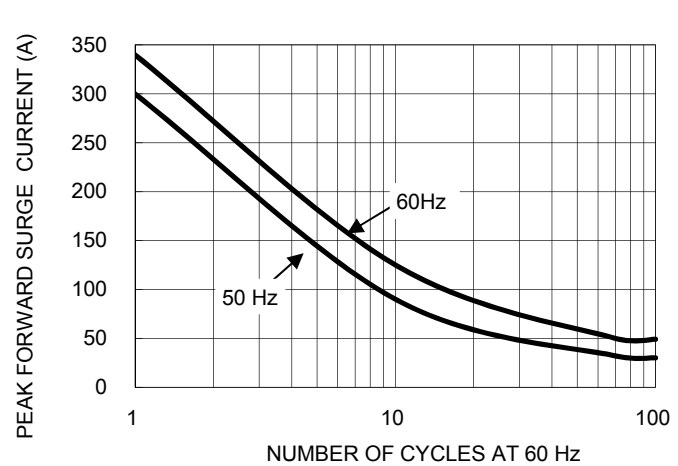


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

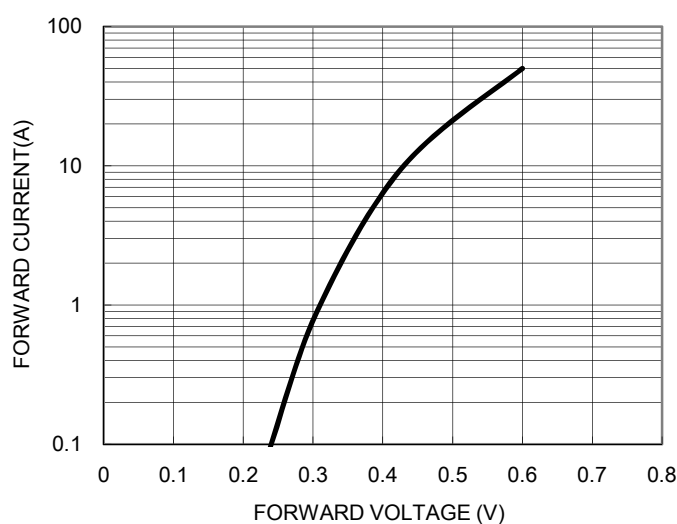


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

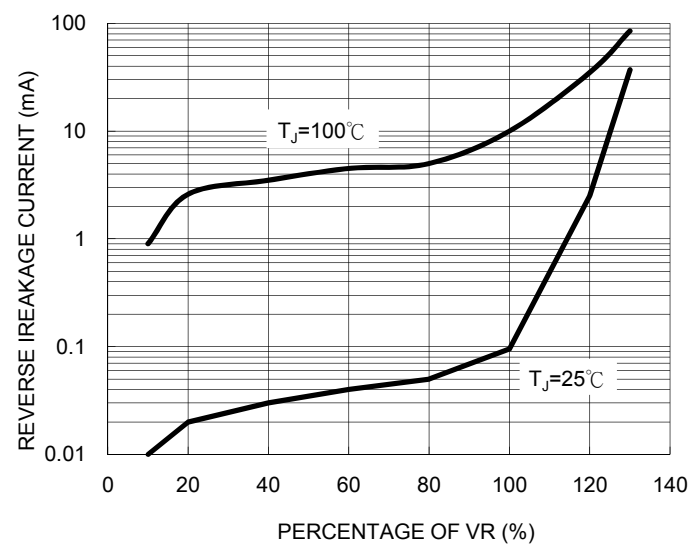


FIG. 5 TYPICAL JUNCTION CAPACITANCE

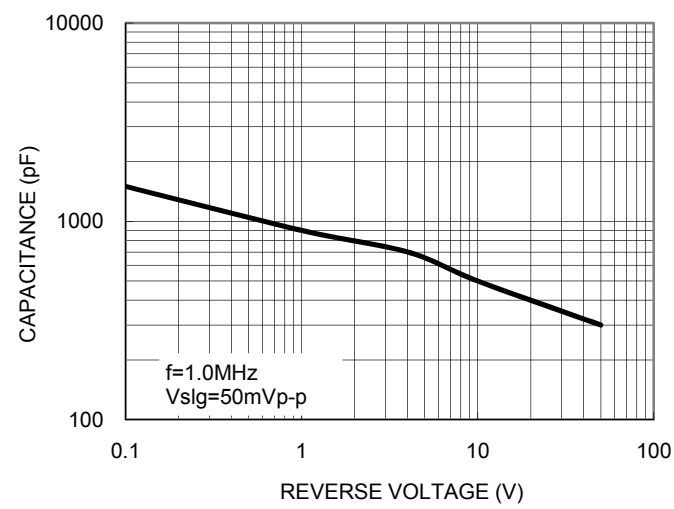
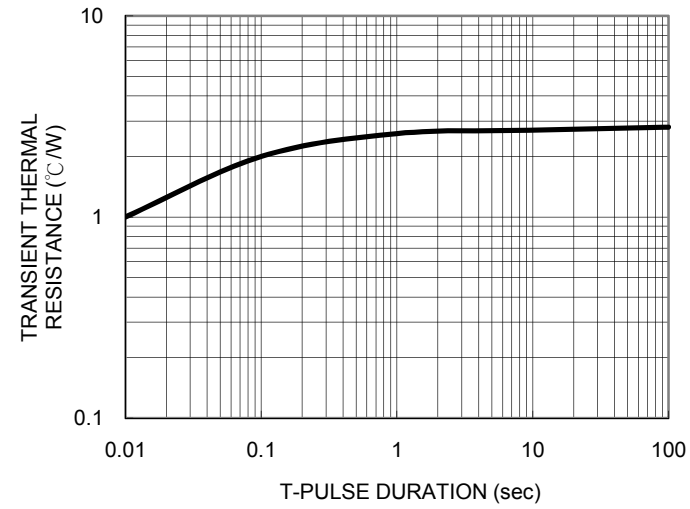
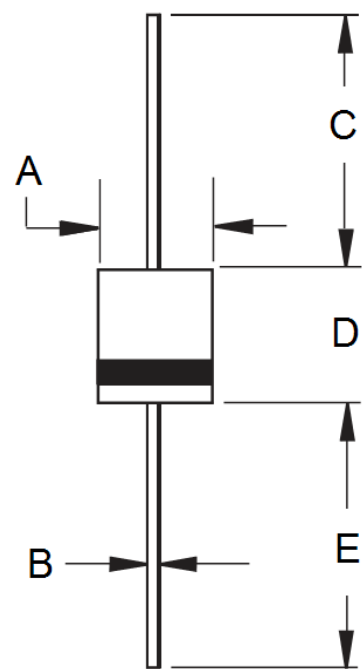


FIG. 6 TYPICAL TRANSIENT THERMAL RESISTANCE



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	6.80	7.20	0.268	0.283
B	1.20	1.30	0.047	0.051
C	25.40	-	1.000	-
D	8.60	9.10	0.339	0.358
E	25.40	-	1.000	-

MARKING DIAGRAM



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

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