

Schottky Barrier Rectifier

FEATURES

- 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: TO-220AC

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

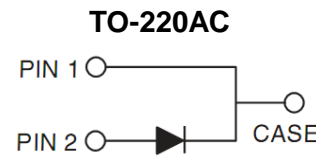
Meet JESD 201 class 1A whisker test,

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

Polarity: As marked

Mounting torque: 5 in-lbs maximum

Weight: 1.9g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)											
PARAMETER	SYMBOL	SRA 2020	SRA 2030	SRA 2040	SRA 2050	SRA 2060	SRA 2090	SRA 20100	SRA 20150	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90	100	150	V	
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	63	70	105	V	
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90	100	150	V	
Maximum average forward rectified current	I _{F(AV)}	20								A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	300								A	
Maximum instantaneous forward voltage (Note 2) I _F = 20 A	V _F	0.55			0.70		0.92		1.02	V	
Maximum reverse current @ rated VR T _J =25 °C T _J =100 °C T _J =125 °C	I _R	0.5					0.1				mA
		15			10		-				
		-							5.0		
Typical thermal resistance	R _{θJC}	1.5								°C/W	
Operating junction temperature range	T _J	- 55 to +125				- 55 to +150					°C
Operating junction temperature range - In DC forward mode	T _J	≤ 200									°C
Storage temperature range	T _{STG}	- 55 to +150									°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
SRA20xx (Note 1)	Prefix "H"	C0	Suffix "G"	TO-220AC	50 / Tube

Note 1: "xx" defines voltage from 20V (SRA2020) to 150V (SRA20150)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SRA2060 C0	SRA2060		C0		
SRA2060 C0G	SRA2060		C0	G	Green compound
SRA2060HC0	SRA2060	H	C0		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

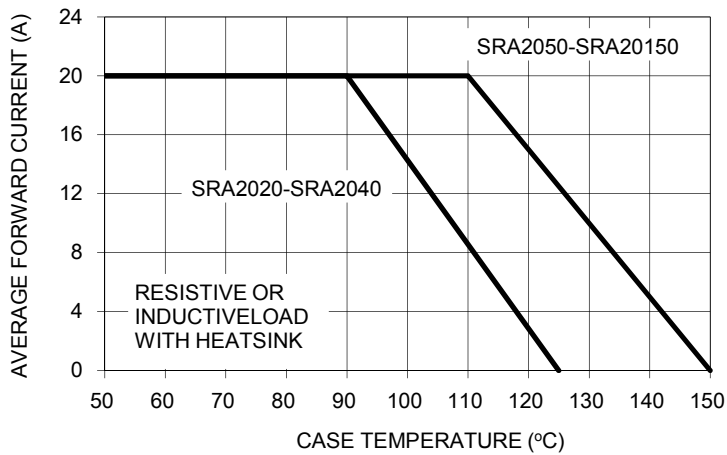


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

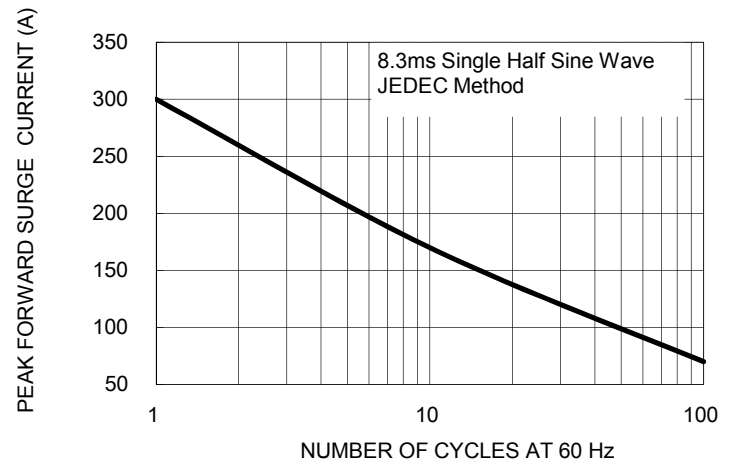


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

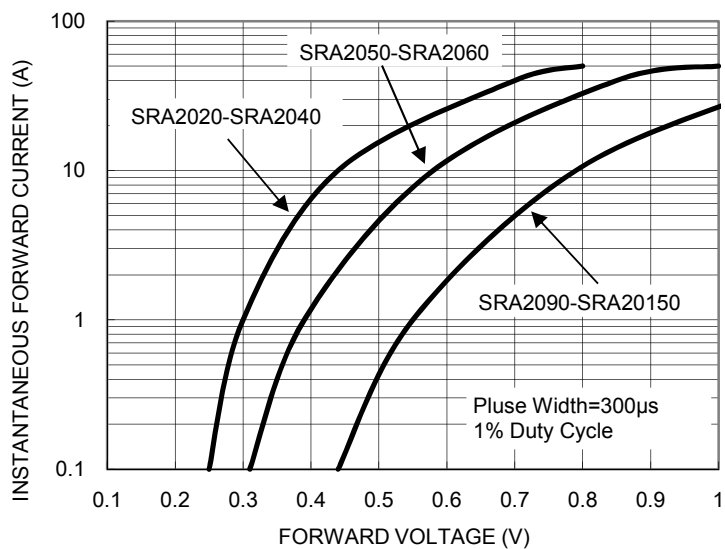


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

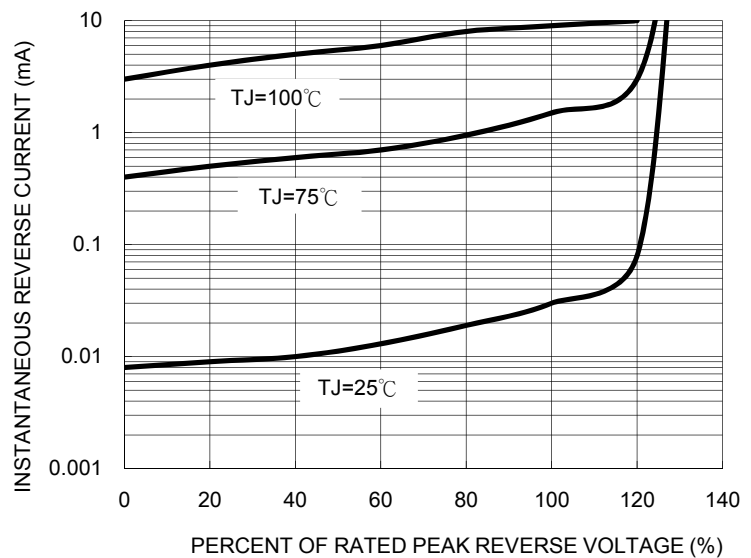


FIG. 5 TYPICAL JUNCTION CAPACITANCE

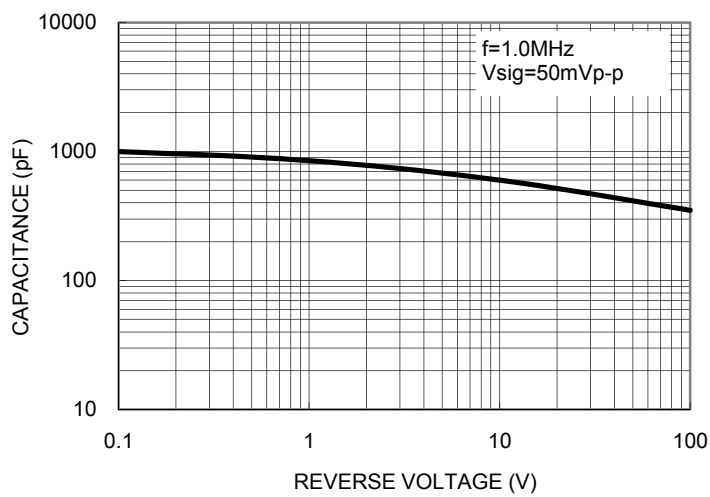
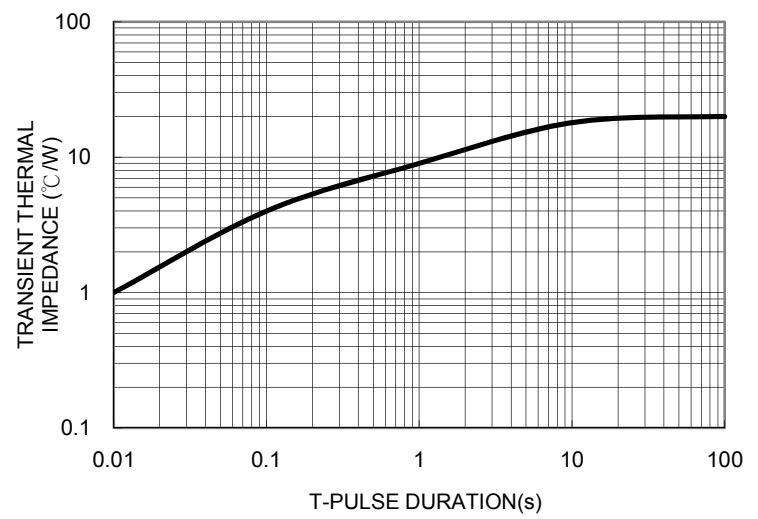
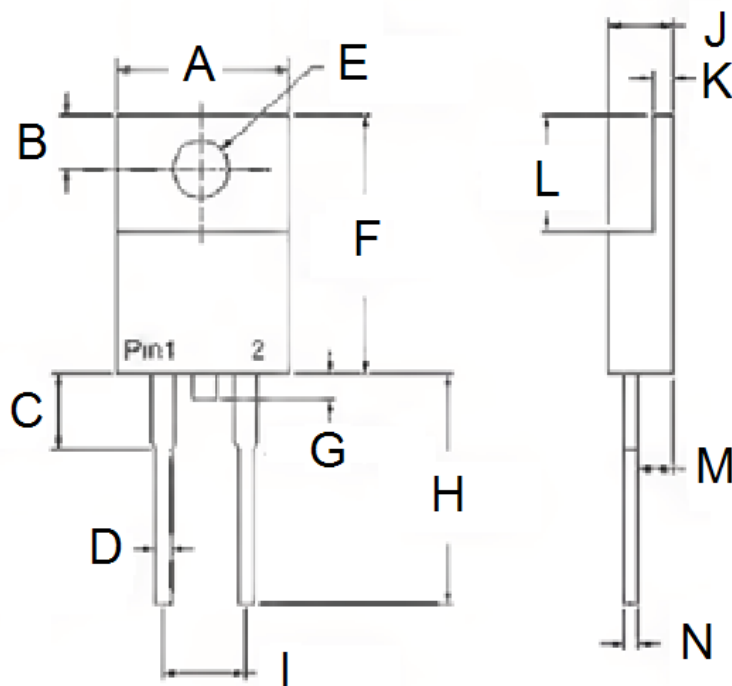


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

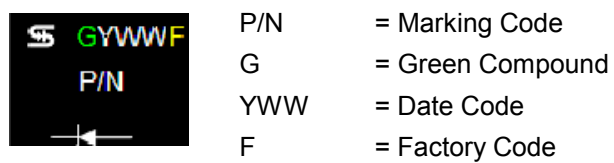


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	2.62	3.44	0.103	0.135
C	2.80	4.20	0.110	0.165
D	0.68	0.94	0.027	0.037
E	3.54	4.00	0.139	0.157
F	14.60	16.00	0.575	0.630
G	0.00	1.60	0.000	0.063
H	13.19	14.79	0.519	0.582
I	4.95	5.20	0.195	0.205
J	4.42	4.76	0.174	0.187
K	1.14	1.40	0.045	0.055
L	5.84	6.86	0.230	0.270
M	2.20	2.80	0.087	0.110
N	0.35	0.64	0.014	0.025

MARKING DIAGRAM



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