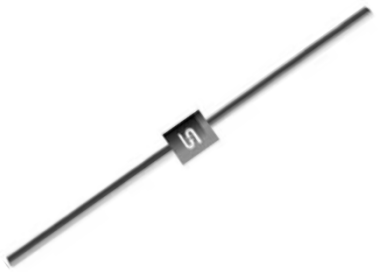
Schottky Barrier Rectifier

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



DO-201AD

Pb-Free

RoHS COMPLIANT

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: 1.1 g (approximately)

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

PARAMETER	SYMBOL	SR 802	SR 803	SR 804	SR 805	SR 806	SR 809	SR 810	SR 815	SR 820	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	90	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	63	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	90	100	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	8									A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150									A
Maximum instantaneous forward voltage (Note 1) @ 8 A	V_F	0.55			0.70		0.92		1.02		V
Maximum reverse current @ rated VR T_J=25 ℃	I_R	0.5					0.1				mA
T_J=100℃		15			10		-				
T_J=125 ℃		-			-		5				
Voltage rate of change (Rated V_R)	dV/dt	10000									V/μs
Typical thermal resistance	$R_{\theta JA}$	40									^{O}C/W
Operating junction temperature range	T_J	- 55 to +125			- 55 to +150						^{O}C
Storage temperature range	T_{STG}	- 55 to +150									^{O}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
SR8xx (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 20V (SR802) to 200V (SR820)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SR806 A0	SR806		A0		
SR806 A0G	SR806		A0	G	Green compound
SR806HA0	SR806	H	A0		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

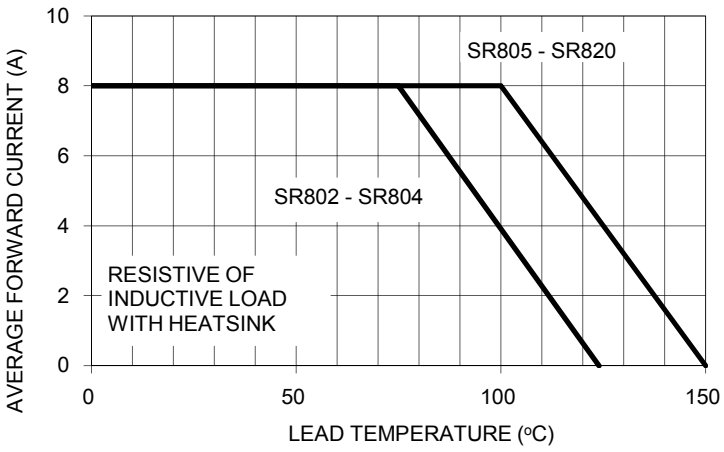


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

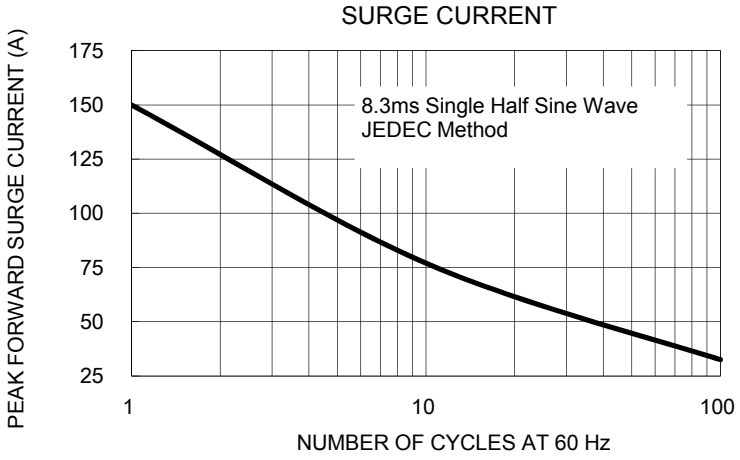


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

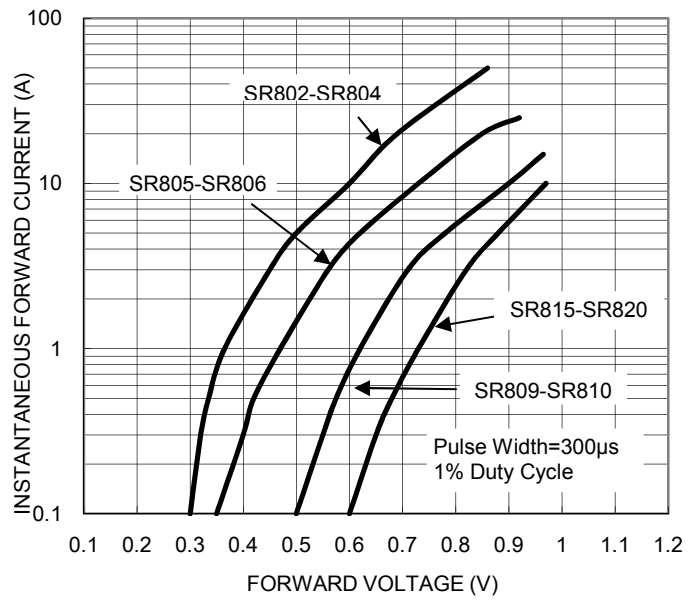


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

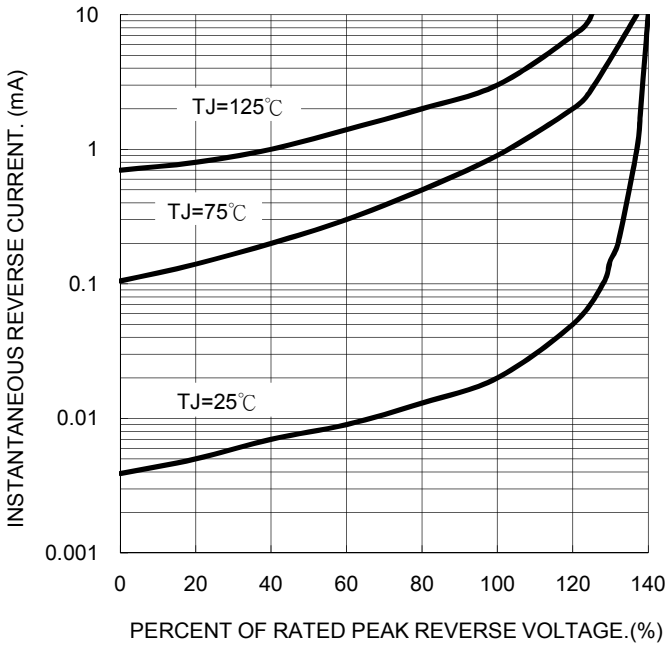


FIG. 5- TYPICAL JUNCTION CAPACITANCE

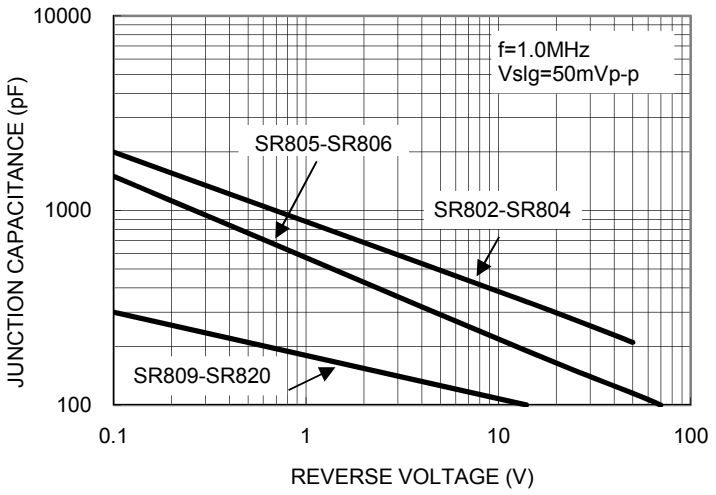
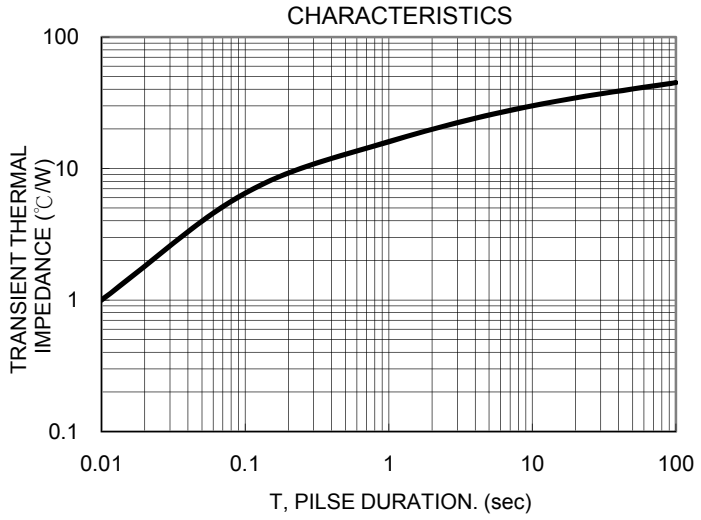
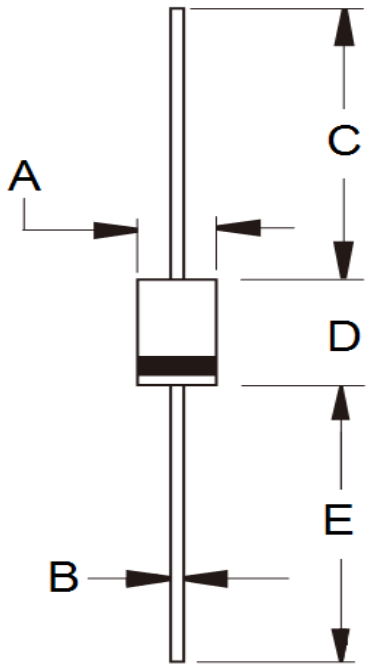


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



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 =	Specific Device Code
G =	Green Compound
YWW =	Date Code
F =	Factory Code

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