# imall

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## **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: 1.1 g (approximately)



DO-201AD

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)											
5454W5755	SYMBOL	SR	SR	SR	SR	SR	SR	SR	SR	SR	UNIT
PARAMETER		802	803	804	805	806	809	810	815	820	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	90	100	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	63	70	105	140	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	90	100	150	200	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	8						Α			
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150				A					
Maximum instantaneous forward voltage (Note 1) @ 8 A	V <sub>F</sub>		0.55 0.70		0.92 1.02		02	v			
Maximum reverse current @ rated VR T <sub>J</sub> =25 $^{\circ}$ C		0.5				0.1					
T <sub>J</sub> =100°C	I <sub>R</sub>	15		10		-			mA		
T <b>」=125</b> ℃				5							
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000			V/µs						
Typical thermal resistance	$R_{ extsf{ heta}JA}$	40			<sup>o</sup> C/W						
Operating junction temperature range	TJ	- 55 to +125 - 55 to +150					°C				
Storage temperature range	T <sub>STG</sub>	- 55 to +150						OO			

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



## SR802 thru SR820

Taiwan Semiconductor

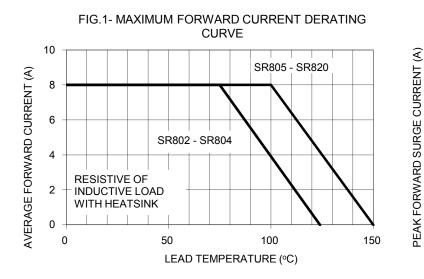
ORDERING INFORMATION						
PART NO.	AEC-Q101	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING	
	QUALIFIED		CODE			
SR8xx (Note 1)		A0	Suffix "G"	DO-201AD	500 / Ammo box	
	Prefix "H"	R0		DO-201AD	1,250 / 13" Paper reel	
		B0		DO-201AD	500 / Bulk packing	
		X0		DO-201AD	Forming	

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	ND DESCRIPTION		
SR806 A0	SR806		A0				
SR806 A0G	SR806		A0	G	Green compound		
SR806HA0	SR806	Н	A0		AEC-Q101 qualified		

## **RATINGS AND CHARACTERISTICS CURVES**

(TA=25 $^{\circ}$ C unless otherwise noted)



#### FIG. 3- TYPICAL FORWARD CHARACTERISTICS

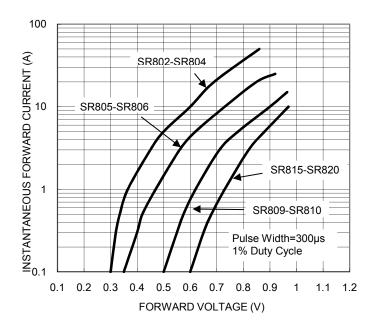
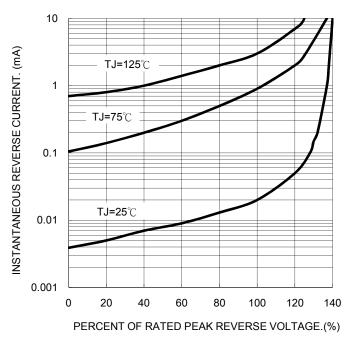
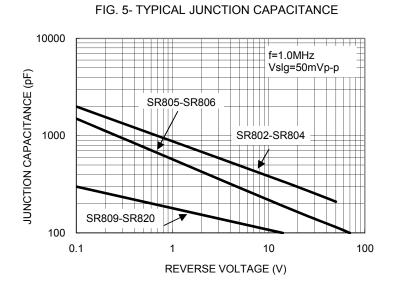


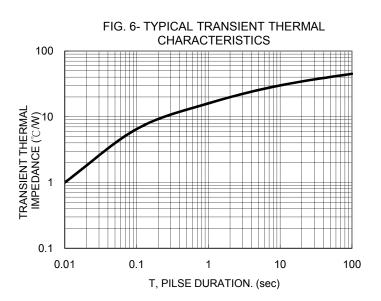
FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

FIG. 4- TYPICAL REVERSE CHARACTERISTICS

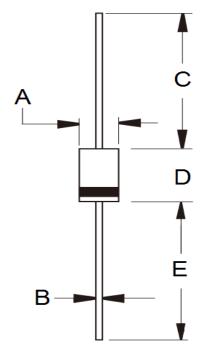






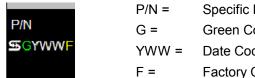


## PACKAGE OUTLINE DIMENSIONS



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

### **MARKING DIAGRAM**



Specific Device Code Green Compound Date Code Factory Code



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