

# 2A, 20V - 200V Schottky Barrier Rectifiers

## **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

#### **MECHANICAL DATA**

Case: DO-204AC (DO-15)

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Pure tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test **Weight:** 0.4g (approximately)







DO-204AC (DO-15)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)											
PARAMETER	SYMBOL	SR 202	SR 203	SR 204	SR 205	SR 206	SR 209	SR 210	SR 215	SR 220	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 <sub>F(AV)</sub>	2							Α		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	50					А				
Maximum instantaneous forward voltage (Note 1) @ 2 A	V <sub>F</sub>		0.55		0.	70	0.	85	0.	95	V
T <sub>J</sub> =25°C		0.5 0.1									
Maximum reverse current @ rated V <sub>R</sub> T <sub>J</sub> =100°C	I <sub>R</sub>		10	5		5	-			mA	
T <sub>J</sub> =125°C		2		2		]					
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000						V/µs			
Typical thermal resistance	$egin{array}{c} R_{ heta JC} \ R_{ heta JL} \ R_{ heta JA} \end{array}$	14.0 21.7 75.0						°C/W			
Operating junction temperature range	TJ	- 55 to +125 - 55 to +150				°C					
Storage temperature range	T <sub>STG</sub>	- 55 to +150					°C				

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



ORDERING INFORMATION							
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX <sup>(*)</sup>	PACKAGE	PACKING		
SR2xx (Note 1)	Н	A0		DO-15	1,500 / Ammo box		
		R0	G	DO-15	3,500 / 13" Paper reel		
		B0		DO-15	1,000 / Bulk packing		

Note 1: "xx" defines voltage from 20V (SR202) to 200V (SR220)

<sup>\*:</sup> Optional available

EXAMPLE							
PREFERRED P/N	PART NO. PART NO. SUFFIX PACKING CODE		PACKING CODE SUFFIX	DESCRIPTION			
SR206HA0G	SR206	Н	Α0	G	AEC-Q101 qualified Green compound		

#### **RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)

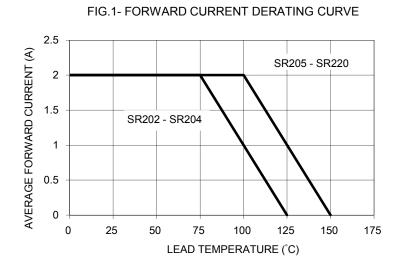


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

50
40
20
10
8.3ms Single Half Sine Wave
0
NUMBER OF CYCLES AT 60 Hz

FIG. 3- TYPICAL FORWARD CHARACTERISTICS

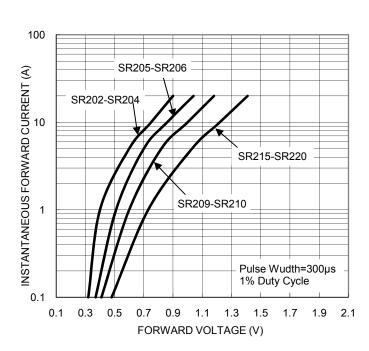
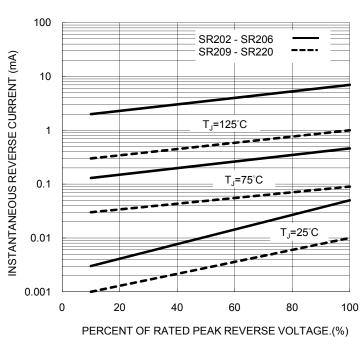
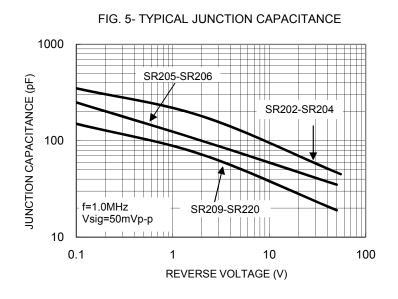
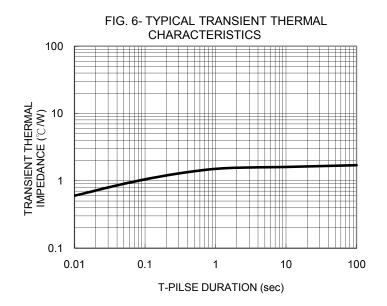


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

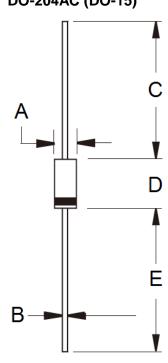








## PACKAGE OUTLINE DIMENSIONS DO-204AC (DO-15)



DIM.	Unit	(mm)	Unit (inch)			
DIIVI.	Min	Max	Min	Max		
Α	2.60	3.60	0.102	0.142		
В	0.70	0.90	0.028	0.035		
С	25.40	-	1.000	-		
D	5.80	7.60	0.228	0.299		
Е	25.40	-	1.000	-		

### **MARKING DIAGRAM**



P/N = Specific Device Code G = Green Compound

YWW = Date Code F = Factory Code



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