

## **Silicon Rectifiers**

### **FEATURES**

- High efficiency, Low VF
- High current capability
- High surge current capability
- Low power loss
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



Case: DO-204AC (DO-15)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

Weight: 0.4g (approximately)



DO-204AC	(DO-15)
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25℃ unless otherwise noted)									
PARAMETER	SYMBOL	1N 5391	1N 5392	1Ň 5393	1N 5395	1N 5397	1N 5398	1N 5399	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	>			1.5				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) @ 1.5 A	V <sub>F</sub>	1.1 1.0						V	
Maximum reverse current @ rated VR $T_J$ =25 $^{\circ}$ C $T_J$ =125 $^{\circ}$	I <sub>R</sub>	5 50						μΑ	
Typical junction capacitance (Note 2)	Cj	50						pF	
Typical thermal resistance	$egin{array}{c} R_{ heta JC} \ R_{ heta JL} \ R_{ heta JA} \end{array}$	5 12 60					°C/W		
Operating junction temperature range	TJ			- (	55 to +1	50			οС
Storage temperature range	T <sub>STG</sub>			- (	55 to +1	50			οС

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

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.



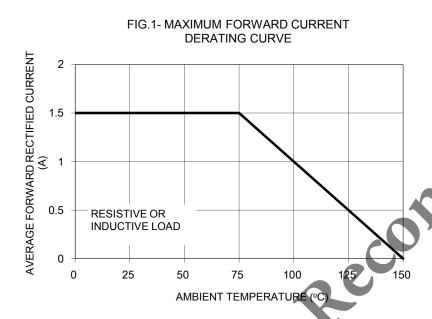
ORDERING INFORMATION						
PART NO.	PACKING	GREEN COMPOUND	PACKAGE	PACKING		
	CODE	CODE				
4NE20	A0		DO-15	1,500 / Ammo box		
1N539x (Note 1)	R0	Suffix "G"	DO-15	3,500 / 13" Paper reel		
(14010-1)	B0		DO-15	1,000 / Bulk packing		

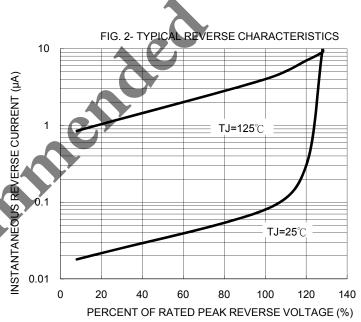
Note 1: "x" defines voltage from 50V (1N5391) to 1000V (1N5399)

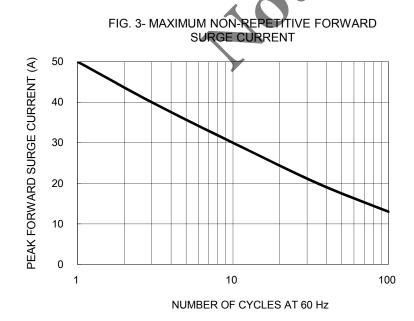
EXAMPLE						
PREFERRED P/N PART NO. PACKING CODE		GREEN COMPOUND CODE	DESCRIPTION			
1N5391 A0	1N5391	A0				
1N5391 A0G	1N5391	A0	G	Green compound		

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

(TA=25°C unless otherwise noted)







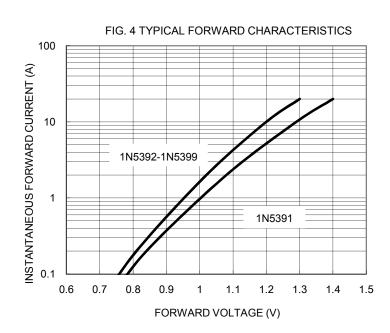
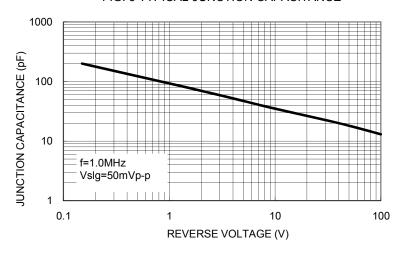
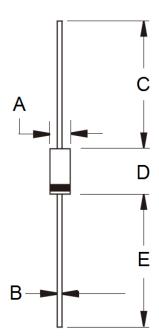




FIG. 5 TYPICAL JUNCTION CAPACITANCE



## PACKAGE OUTLINE DIMENSIONS



DIM	Unit (mm)		Unit (	(inch)
DIM.	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	-
	<b>3</b>			

#### **MARKING DIAGRAM**



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

F = Factory Code





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Document Number: DS\_D1406009 Version: D14

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