



# **Fast Recovery Rectifiers**

### **FEATURES**

- High efficiency, Low VF
- High current capability
- High reliability
- 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-204AL (DO-41) **DO-204AL (DO-41)** 

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:** 0.33 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERSTICS (T <sub>A</sub> =25°C unless otherwise noted)							
PARAMETER	SYMBOL	1N 4933	1N 4934	1N 4935	1N 4936	1N 4937	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	1.0					Α
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30					А
Maximum instantaneous forward voltage (Note 1) @ 1 A	V <sub>F</sub>	1.2				V	
Maximum reverse current @ rated VR T <sub>J</sub> =25 T <sub>J</sub> =125 T <sub>J</sub> =	I <sub>R</sub>	5 150				μΑ	
Maximum reverse recovery time (Note 2)	Trr	200				ns	
Typical junction capacitance (Note 3)	Cj	10				pF	
Typical thermal resistance	$R_{ heta JA}$	65				°C/W	
Operating junction temperature range	TJ	- 55 to +150			оС		
Storage temperature range	T <sub>STG</sub>	- 55 to +150			οС		

Note1: Pulse Test with PW=300µs, 1% Duty Cycle

Note2: Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A Note3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.



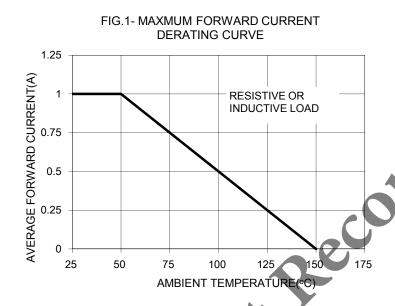
ORDERING INFORMATION					
PART NO.	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING	
		CODE			
	A0	Suffix "G"	DO-41	3,000 / Ammo box (52mm taping)	
1N493x (Note 1)	R0		DO-41	5,000 / 13" Paper reel	
	R1		DO-41	5,000 / 13" Paper reel (Reverse)	
	В0		DO-41	1,000 / Bulk packing	

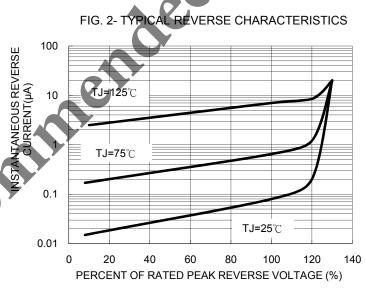
Note 1: "x" defines voltage from 50V (1N4933) to 600V (1N4937)

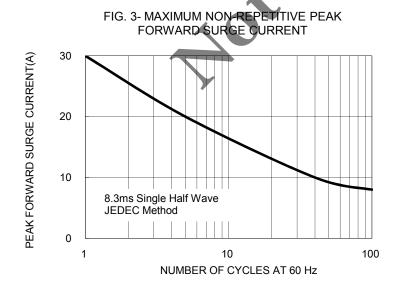
EXAMPLE						
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION		
1N4937 A0	1N4937	A0				
1N4937 A0G	1N4937	A0	G	Green compound		

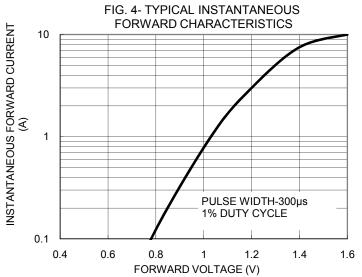
#### **RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

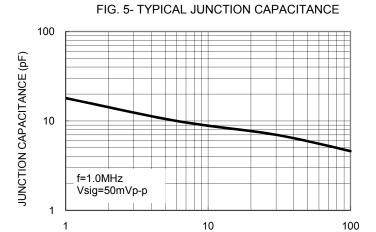






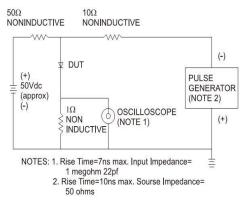


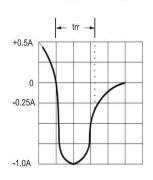




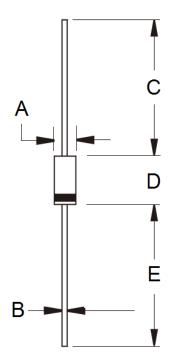
REVERSE VOLTAGE (V)

#### FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





### **PACKAGE OUTLINE DIMENSIONS**



DIM.	Unit	(mm)	Unit (inch)			
DIIVI.	Min	Max	Min	Max		
Α	2.00	2.70	0.079	0.106		
В	0.71	0.86	0.028	0.034		
С	25.40	-	1.000	-		
D	4.20	5.20	0.165	0.205		
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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