

DATA SHEET

GENERAL SERIES RECTIFIER
GENERAL PURPOSE

1N4001G-1N4007G SERIES

RoHS compliant & Halogen free

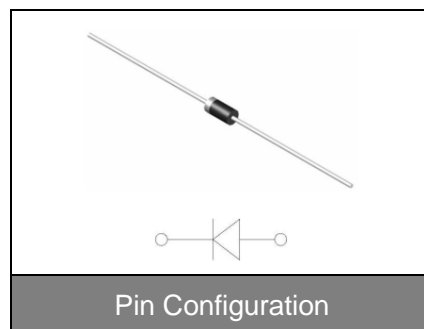
Product specification— July 26, 2023 V.0



General Series Rectifier

Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106



Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

- Package: DO-41 Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end

Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	Units
Marking Code	/	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	/
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Average rectified output current @ 60Hz sine wave, Resistance load, TL (FIG.1)	IO	1.0							A
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	30							A
Current squared time @ 1ms ≤ t ≤ 8.3ms Ta=25°C, Rating of per diode	I²t	3.7							A²s
Thermal Resistance(Typical) @Between junction and case	RθJ-A	60							°C/W
Storage Temperature	Tstg	-55 ~ +150							°C
Junction Temperature	Tj	-55 ~ +150							°C

Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Conditions	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	Unit
Maximum instantaneous forward voltage	VF	$I_{FM}=1.0A$	1.1							V
Maximum DC reverse current at rated DC blocking voltage	IRRM	$V_R=V_{DC}$ @Ta=25°C	2.5							uA
		$V_R=V_{DC}$ @Ta=125°C	50							uA

Typical Characteristics Curves

Figure 1. Io-Ta Curve

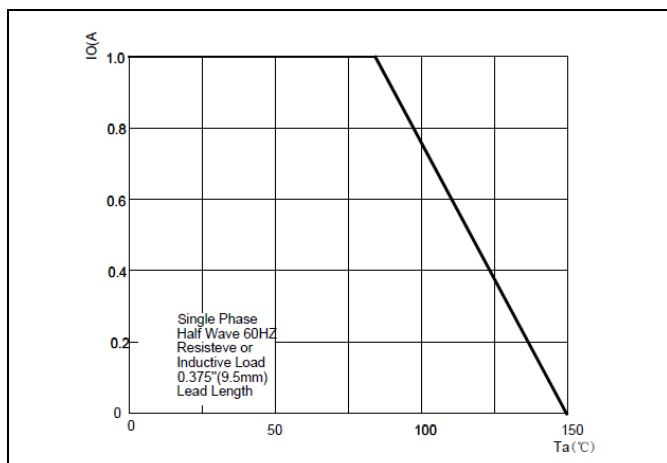


Figure 2. Forward Surge Current Capability

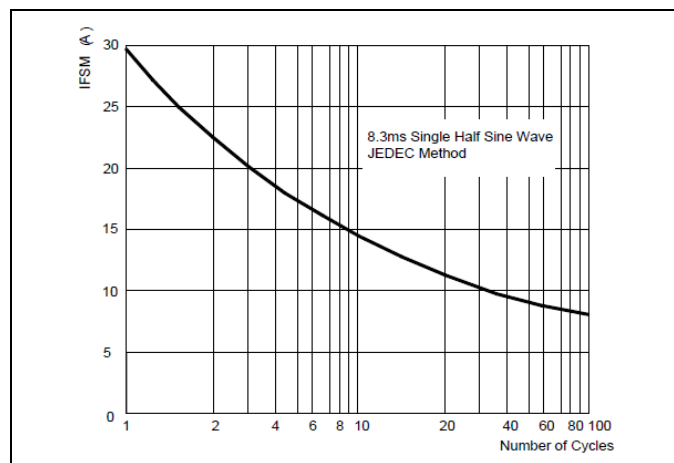


Figure 3. Forward Voltage

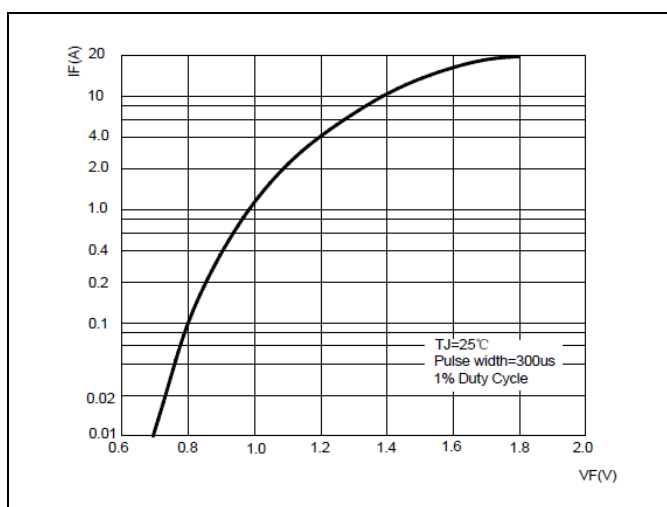
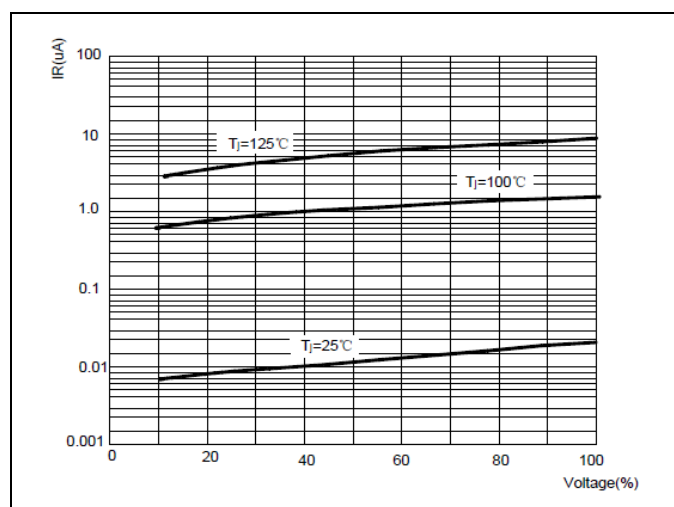
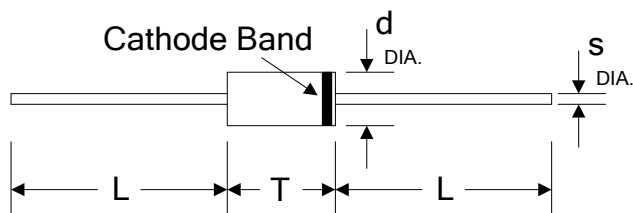


Figure 4. Typical Reverse Characteristics



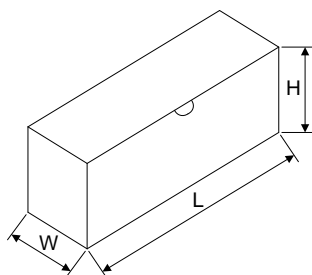
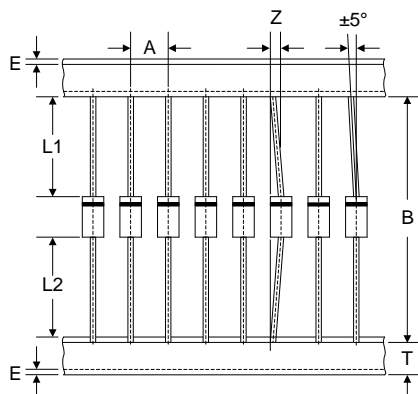
Dimensions (DO-204AL/DO-41)

Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
L	25.40	--	1.000	--
T	4.10	5.21	0.161	0.205
d	2.00	2.72	0.078	0.107
s	0.69	0.86	0.027	0.034



Packaging

Tape	Symbol	Dimension (mm)
	A	5.00±0.50
	B	52.5±1.0
	Z	1.60max.
	T	6.00±0.40
	E	0.80max.
	L1-L2	1.00max.
Box	L	254±1.0
	W	75.±1.0
	H	144±1.0
	Quantity: 5000pcs	



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