General Purpose 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
- AEC-Q 101 qualified (Automotive grade with suffix " Q ")
- Expsemi electronics
- **Typical Applications**

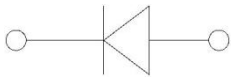
For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

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℃Unless otherwise specified)

PARAMETER	Symbol	Unit	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average Forward Current @Half-sine wave, Resistance load, Tc(Fig.1)	I_O	A	1.0						
Forward Surge Current (Non-repetitive) @60HZ sine wave, 1 cycle, Ta=25℃	I_{FSM}	A	30						
Current squared time @1ms≤t8.3≤ms Ta=25℃，Rating of per diode	I^2t	A^2s	3.7						
Thermal Resistance(Typical) @Between junction and case	$R_{\theta J-A}$	℃/W	60						
Storage Temperature	T_{stg}	℃	-55 ~ +150						
Junction Temperature	T_j	℃	-55 ~ +150						

Electrical Characteristics（Ta=25℃ Unless otherwise specified）

PARAMETER	Symbol	Unit	Conditions	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G
Peak Forward Voltage	VFM	V	I F =1.0A	1.1						
Peak Reverse Current	I_{RRM}	μA	VR =V_{DC} @Ta=25℃	2.5						
			VR =V_{DC} @Ta=125℃	50						

Characteristics（Typical）

FIG.1: Io-Ta Curve

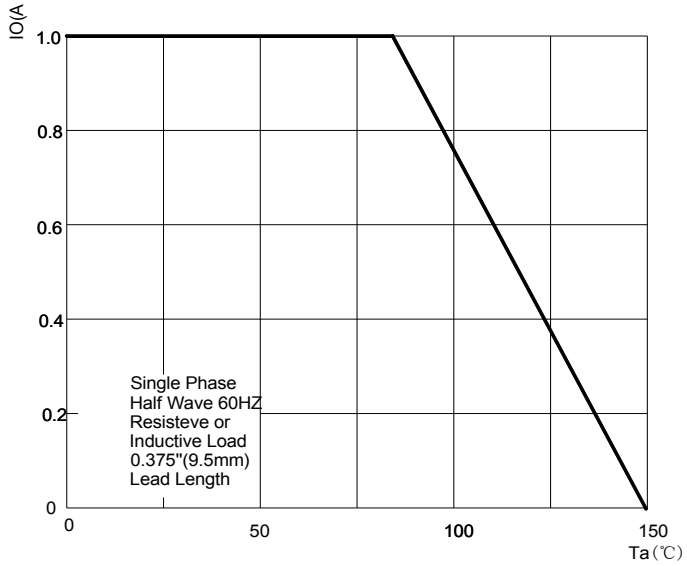


FIG.2: Forward Surge Current Capability

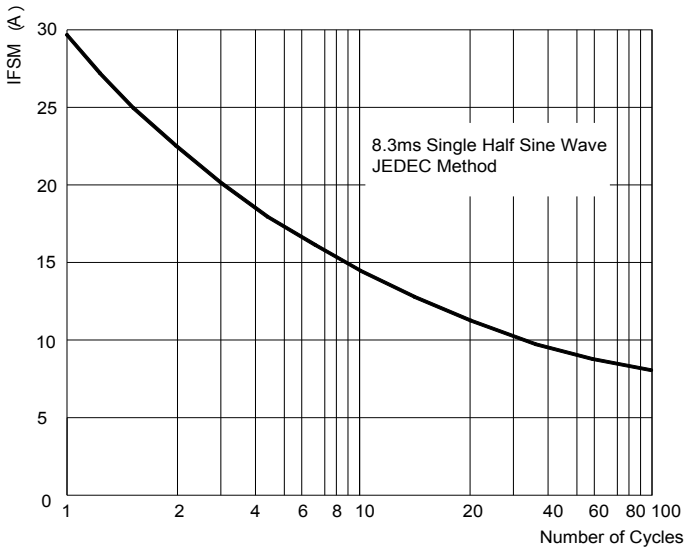


FIG.3: Forward Voltage

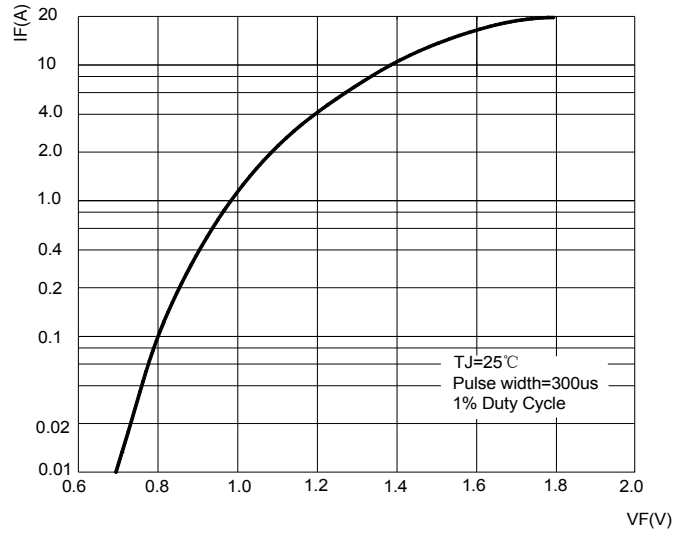
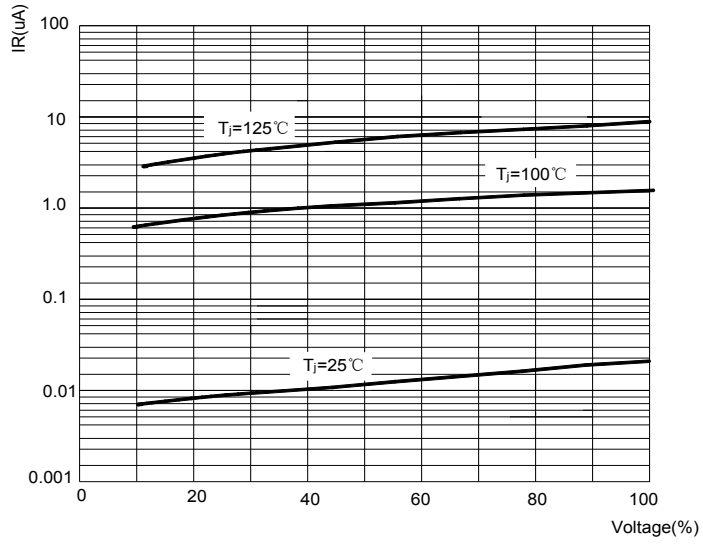


FIG.4: Typical Reverse Characteristics



Outline Dimensions