

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

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

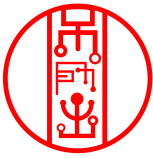


■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	1N400 1	1N400 2	1N400 3	1N400 4	1N400 5	1N400 6	1N400 7
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°C	I_{FSM}	A	30						
Current squared time @1ms≤t.3≤ms Ta=25°C, Rating of per diode	I^2t	A ² s	3.7						
Thermal Resistance(Typical) @Between junction and case	$R_{\theta J-A}$	°C/W	60						
Storage Temperature	T_{stg}	°C	-55 ~ +150						
Junction Temperature	T_j	°C	-55 ~ +150						

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

PARAMETER	Symbol	Unit	Conditions	1N400 1	1N400 2	1N400 3	1N400 4	1N400 5	1N400 6	1N400 7
Peak Forward Voltage	V_{FM}	V	$I_F = 1.0A$	1.1						
Peak Reverse Current	I_{RRM}	μA	$V_R = V_{DC} @ T_a = 25^\circ C$	2.5						
			$V_R = V_{DC} @ T_a = 125^\circ C$	50						



■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

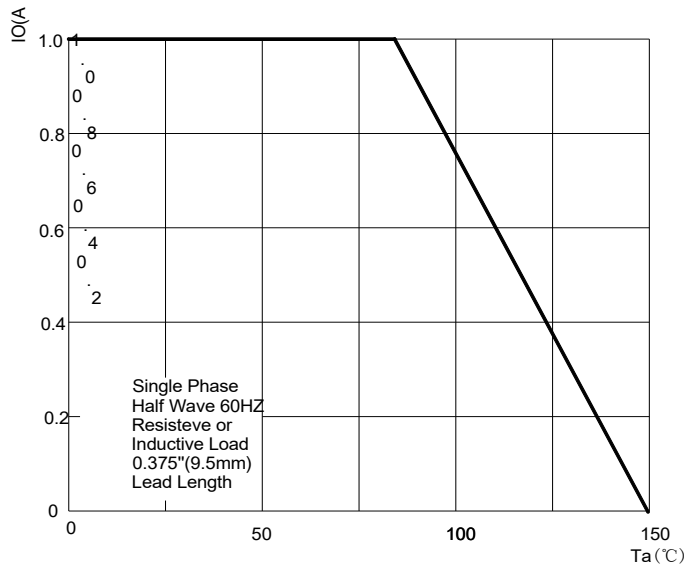


FIG.2: Forward Surge Current Capability

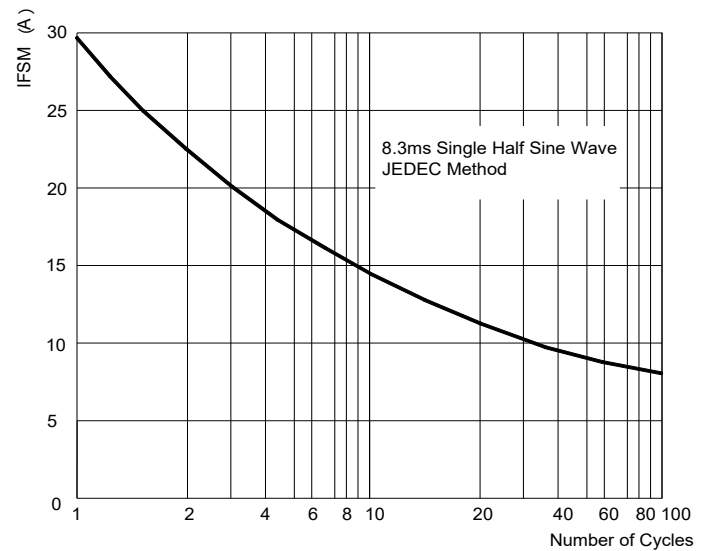


FIG.3: Forward Voltage

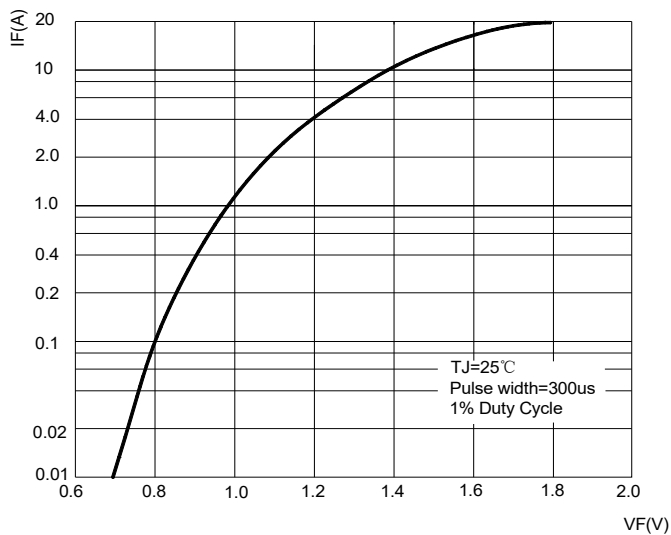
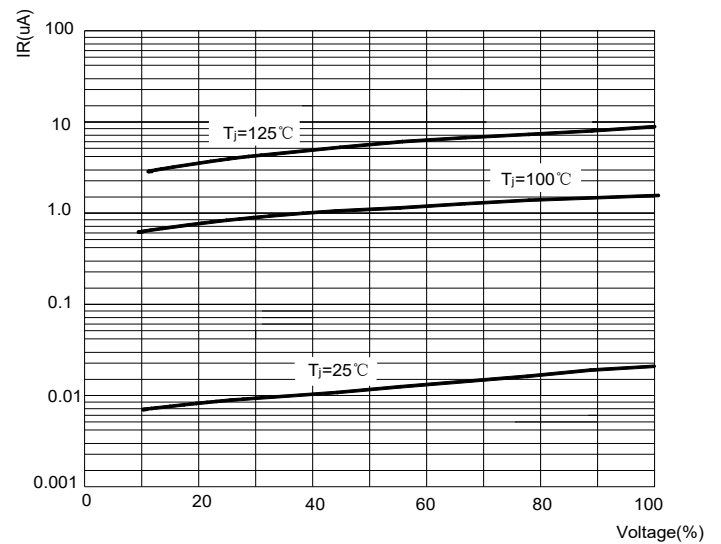
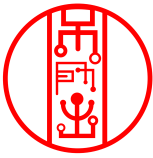


FIG.4: Typical Reverse Characteristics





1N4001 THRU 1N4007

■ Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM package(PCS)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4001 THRU 1N4007	DO-41	5000	5000	50000	Ammo box

■ Outline Dimensions

