

Axial-Lead Standard Recovery Rectifiers

Lead mounted standard recovery rectifiers are designed for use in power supplies and other applications having need of a device with the following features:

- High Current to Small Size
- High Surge Current Capability
- Low Forward Voltage Drop
- Void-Free Economical Plastic Package
- Available in Volume Quantities

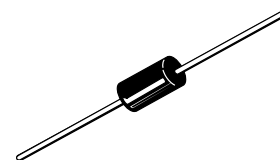
Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.1 gram (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead and Mounting Surface Temperature for Soldering Purposes: 220°C Max. for 10 Seconds, 1/16" from case
- Shipped in plastic bags, 5,000 per bag.
- Available Tape and Reeled, 1500 per reel, by adding a "RL" suffix to the part number
- Polarity: Cathode Indicated by Polarity Band
- Marking: 1N5400, 1N5401, 1N5402, 1N5404, 1N5406, 1N5407, 1N5408

**1N5400
thru
1N5408**

1N5404 and 1N5406 are
Motorola Preferred Devices

**STANDARD
RECOVERY RECTIFIERS
50–1000 VOLTS
3.0 AMPERE**



CASE 267-03

MAXIMUM RATINGS

Rating	Symbol	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	Volts
Non-repetitive Peak Reverse Voltage	V_{RSM}	100	200	300	525	800	1000	1200	Volts
Average Rectified Forward Current (Single Phase Resistive Load, 1/2" Leads, $T_L = 105^\circ\text{C}$)	I_O	3.0							Amp
Non-repetitive Peak Surge Current (Surge Applied at Rated Load Conditions)	I_{FSM}	200 (one cycle)							Amp
Operating and Storage Junction Temperature Range	T_J T_{stg}	– 65 to +170 – 65 to +175							$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient (PC Board Mount, 1/2" Leads)	$R_{\theta JA}$	53	$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
*Instantaneous Forward Voltage (1) ($i_F = 9.4$ Amp)	V_F	—	—	1.2	Volts
Average Reverse Current (1) DC Reverse Current (Rated dc Voltage, $T_L = 80^\circ\text{C}$)	$I_{R(AV)}$ I_R	—	—	500 500	μA

* JEDEC Registered Data.

(1) Measured in a single phase halfwave circuit such as shown in Figure 6.25 of EIA RS–282, November 1963. Operated at rated load conditions
 $T_L = 80^\circ\text{C}$, $I_O = 3.0$ A, $V_F = V_{RWM}$.

Preferred devices are Motorola recommended choices for future use and best overall value.

Ratings at 25°C ambient temperature unless otherwise specified.

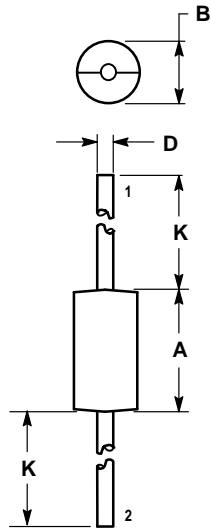
60 Hz resistive or inductive loads.

For capacitive load, derate current by 20%.



1N5400 thru 1N5408

PACKAGE DIMENSIONS

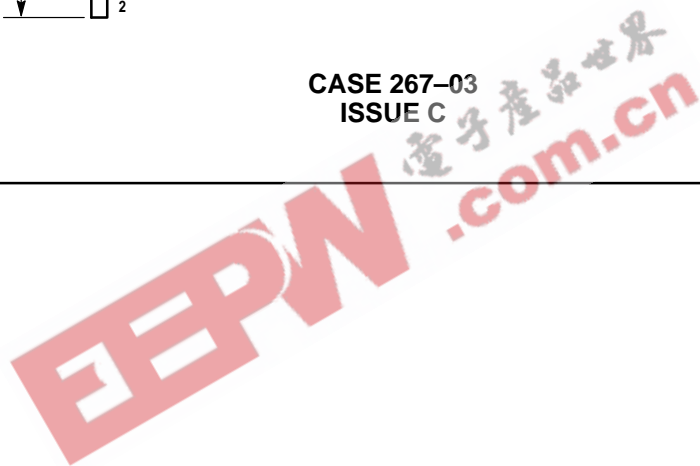



NOTES:
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.370	0.380	9.40	9.65
B	0.190	0.210	4.83	5.33
D	0.048	0.052	1.22	1.32
K	1.000	—	25.40	—

STYLE 1:
 PIN 1. CATHODE
 2. ANODE

**CASE 267-03
 ISSUE C**



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