

# Kingtronics®

# 1N5400 THRU 1N5408

## GENERAL PURPOSE SILICON RECTIFIER

**VOLTAGE RANGE** 50 to 1000 Volts    **FORWARD CURRENT** 3.0 Ampere

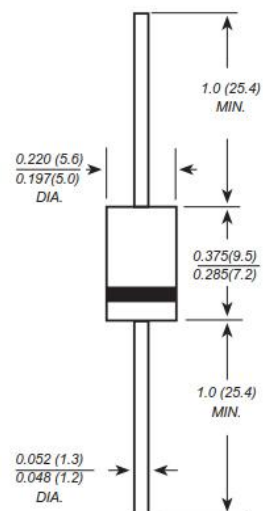
### FEATURES

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0  
 Construction utilizes void-free molded plastic technique  
 Low reverse leakage  
 High forward surge current capability  
 High temperature soldering guaranteed:  
 250°C/10 seconds, 0.375"(9.5mm) lead length,  
 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-201AD molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting position:** Any  
**Weight:** 0.04 ounce, 1.10 grams

### DO-201AD



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load, for capacitive load derate current by 20%.

PARAMETER	SYMBOL	1N5400	1N5401	1N5402	1N5403	1N5404	1N5405	1N5406	1N5407	1N5408	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	3.0									Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100									Amps
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.2									Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	10.0									uA
	$T_A = 100^\circ\text{C}$	250.0									
Typical Junction Capacitance (NOTE 1)	$C_J$	30.0									pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	20.0									°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175									°C

1. Measured at 1MHz and applied reverse voltage of 4.0 V D.C.

2. Thermal Resistance from Junction to Ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

**Kingtronics® International Company**

# Kingtronics®

# 1N5400 THRU 1N5408

## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

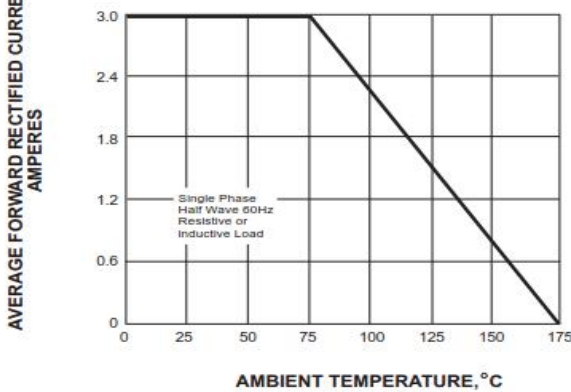


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

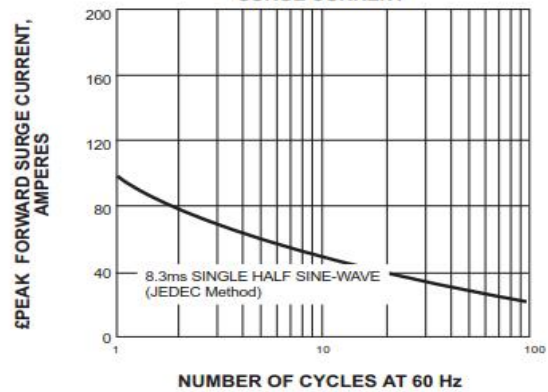


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

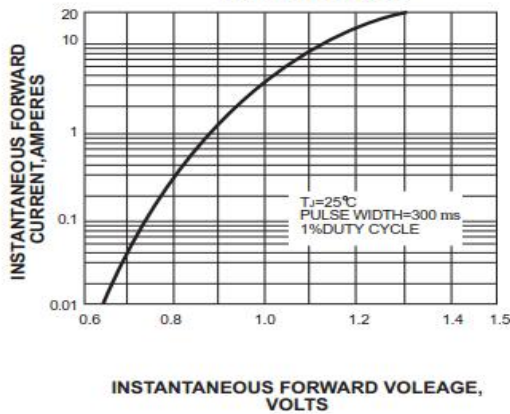


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

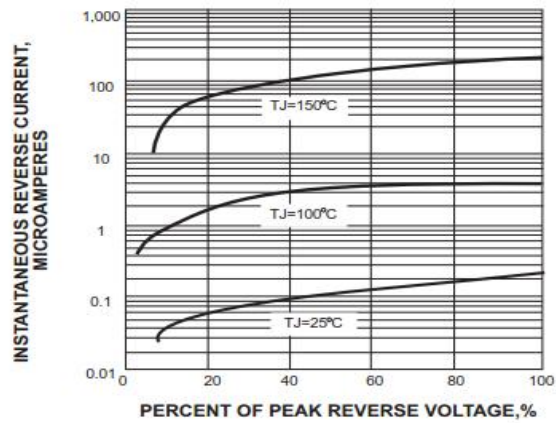


FIG. 5-TYPICAL JUNCTION CAPACITANCE

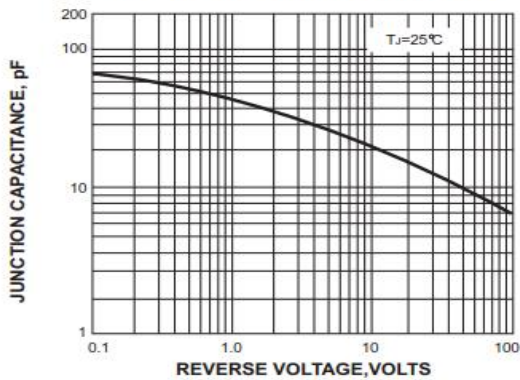
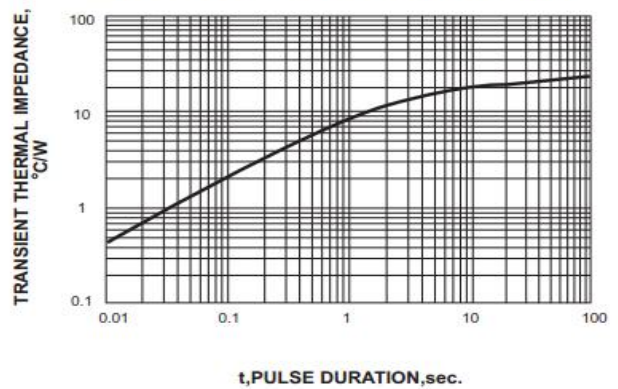


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Note: Specifications are subject to change without notice.

**Kingtronics® International Company**

Website: [www.kingtronics.com](http://www.kingtronics.com) Email: [info@kingtronics.com](mailto:info@kingtronics.com) Tel: (852) 8106 7033 Fax: (852) 8106 7099