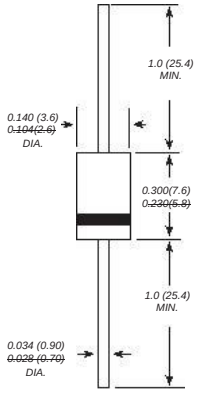
1N5391 THRU 1N5399

GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - *50 to 1000 Volts* ***Forward Current -*** *1.5Amperes*

DO-15



Dimensions in inches and (millimeters)

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-15 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.014 ounce, 0.40 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

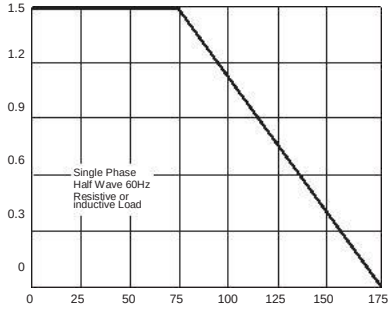
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	1N 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	UNITS
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°C	$I_{(AV)}$	1.5									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0									Amps
Maximum instantaneous forward voltage at 1.5A	V_F	1.4									Volts
Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=100°C	I_R	5.0 50.0									mA
Typical junction capacitance (NOTE 1)	C_J	20.0									pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0									°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175									°C

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

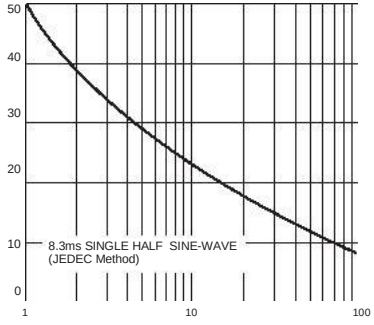
RATINGS AND CHARACTERISTIC CURVES 1N5391 THRU 1N5399

FIG. 1- FORWARD CURRENT DERATING CURVE



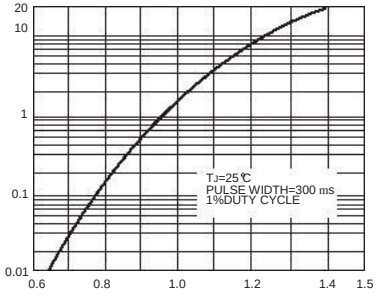
AMBIENT TEMPERATURE, C

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



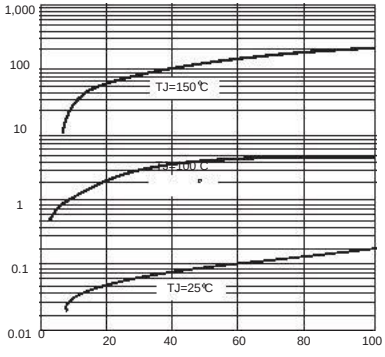
NUMBER OF CYCLES AT 60 Hz

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



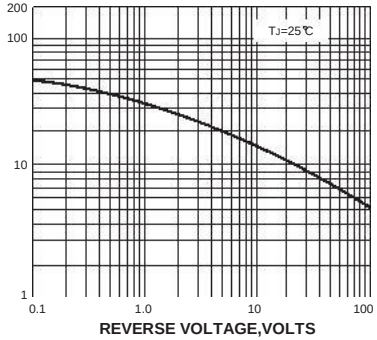
INSTANTANEOUS FORWARD VOLEAGE, VOLTS

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



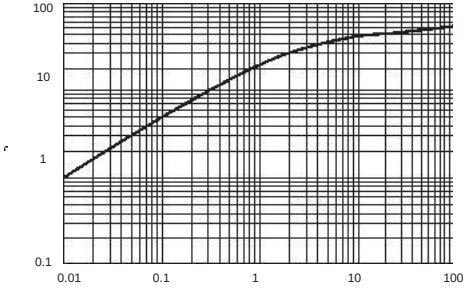
PERCENT OF PEAK REVERSE VOLTAGE,%

FIG. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE,VOLTS

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t,PULSE DURATION,sec.