

Voltage Range 50 to 1000 V

Current 5.0 Ampere

Features

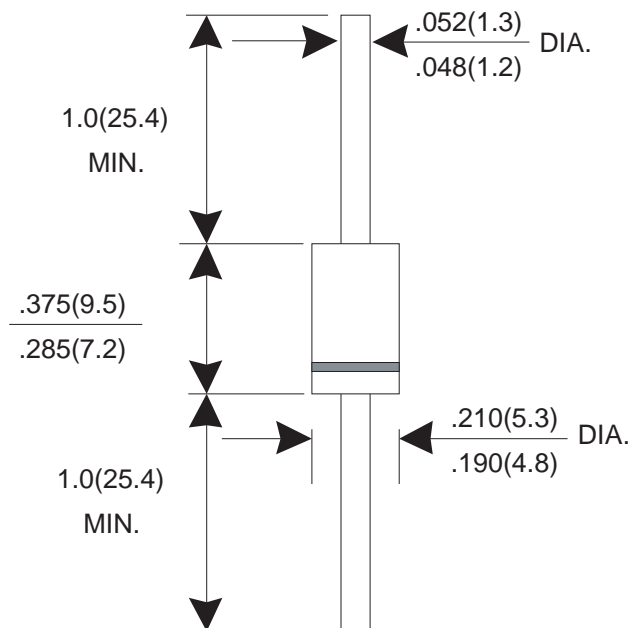
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

Mechanical Data

- Case: Molded plastic DO-201AD
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202 method 208
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight: 1.1 gram

Dimensions in inches and (millimeters)

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMTER	SYMBOL	TUF 501G	TUF 502G	TUF 503G	TUF 504G	TUF 505G	TUF 506G	TUF 507G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_L=55^\circ\text{C}$	IF(AV)	5.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	150							A
Maximum Instantaneous Forward Voltage @ 5.0 A	VF	1.0		1.3		1.7		V	
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	IR	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	50				75			nS
Typical junction Capacitance (Note 2)	CJ	100				65			pF
Typical Thermal Resistance (Note 3)	RθJA	25							°CW
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to +150							°C

NOTES : (1) Reverse recovery test conditions $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$.
 (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 (2) Thermal Resistance junction to lead.

RATING AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

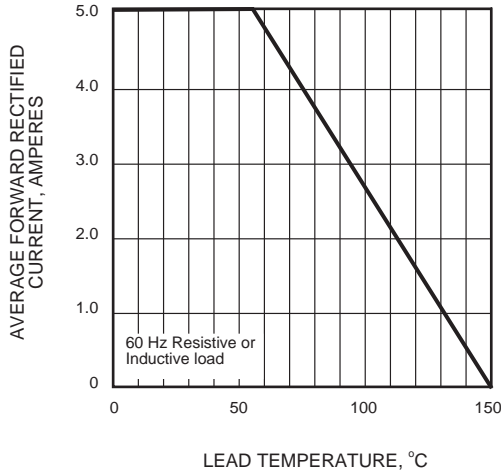


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

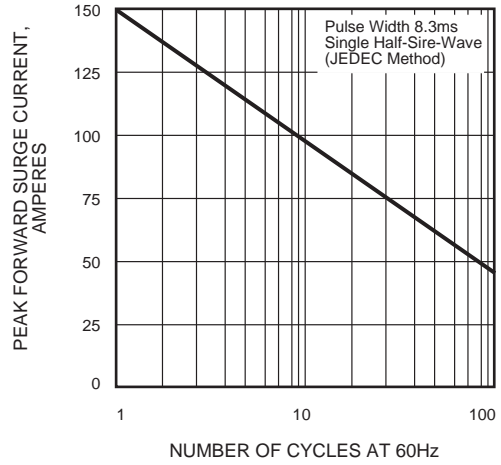


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

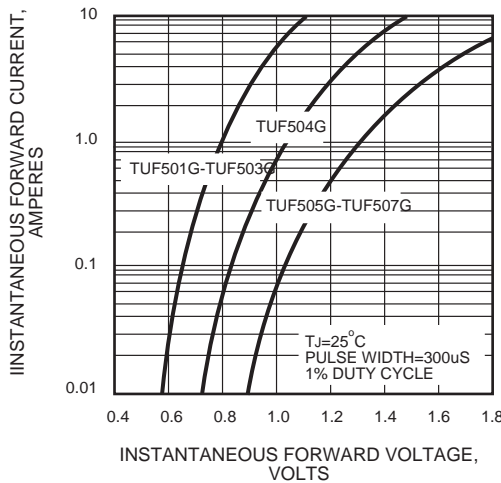


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

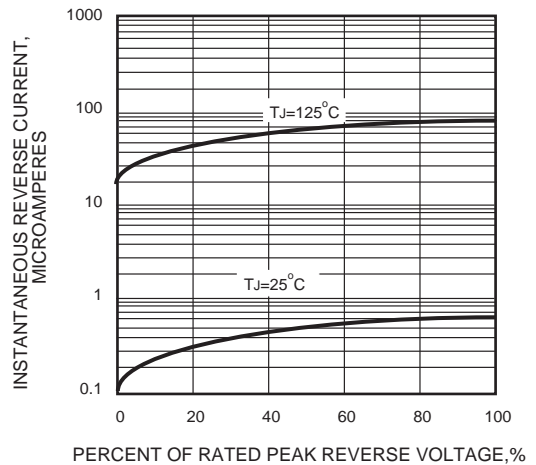


FIG.5 - TYPICAL JUNCTION CAPACITANCE

