

VOLTAGE RANGE: 50 - 800V

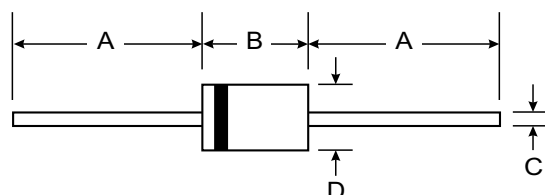
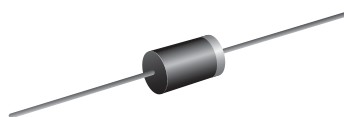
CURRENT: 3.0 A

Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- High surge current capability
- Construction utilizing void-free
- molded plastic technique
- 3.0 Ampere operation at
- $T_A=55^{\circ}\text{C}$ with no thermal runaway
- Fast switching for high efficiency
- High temperature soldering guaranteed:
- $250^{\circ}\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics $T_A = 25^{\circ}\text{C}$ unless otherwise specified

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

Characteristic	Symbol	SRP 300A	SRP 300B	SRP 300D	SRP 300G	SRP 300J	SRP 300K	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =55°C	I _{AV}	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T _A =55°C	I _{FSM}	150.0						Amps
Maximum instantaneous forward voltage at 3.0A	V _F	1.3						Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	10.0						μA
		200			300	400	500	
Maximum reverse recovery time (NOTE 1)	t _{rr}	100		150		200		ns
Typical junction capacitance (NOTE 2)	C _J	28.0						pF
Typical thermal resistance (NOTE 3)	R _{θJA}	22.0						°C/W
Operating junction temperature range	T _J	-50 to +125						°C
Storage temperature range	T _{STG}	-50 to +150						°C

NOTES:

(1) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length with both leads equally heat sink

RATINGS AND CHARACTERISTIC CURVES SRP300A THRU SRP300K

FIG. 1 - FORWARD CURRENT DERATING CURVE

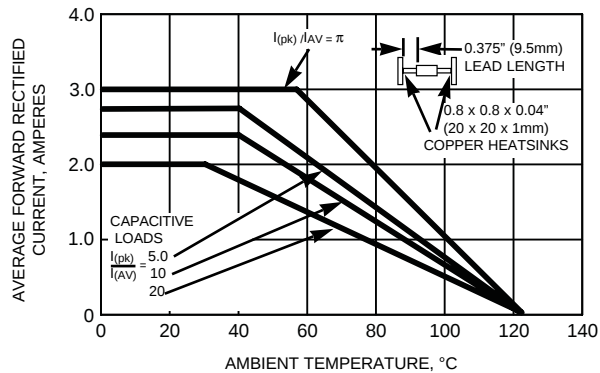


FIG. 2 - MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT

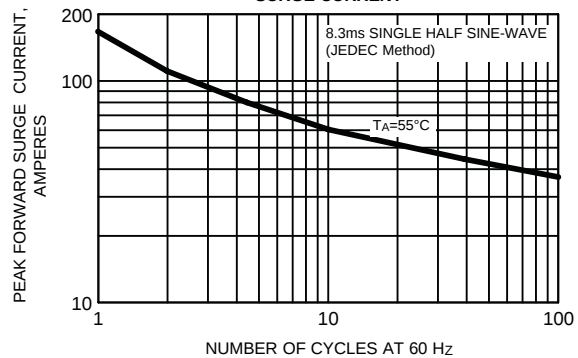


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

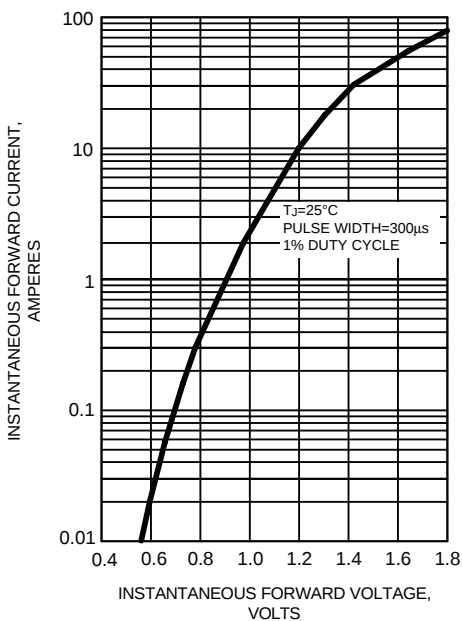


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

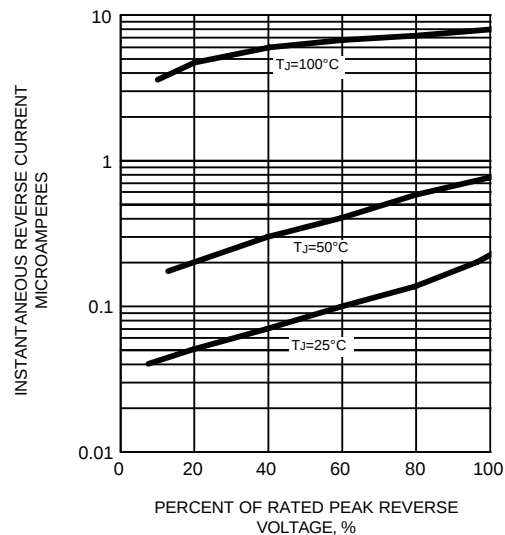


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

