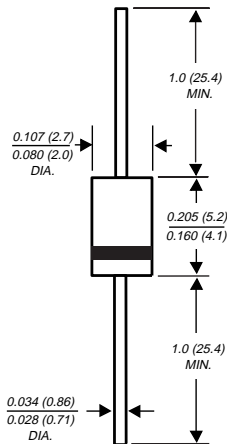


SRP100A THRU SRP100K

FAST SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 50 to 800 Volts Forward Current - 1.0 Ampere

DO-204AL



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High surge current capability
- ◆ Construction utilizes void-free molded plastic technique
- ◆ 1.0 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: JEDEC DO-204AL molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color Band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 1.3 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	SRP 100A	SRP 100B	SRP 100D	SRP 100G	SRP 100J	SRP 100K	UNITS
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 $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.0						Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A=75^\circ\text{C}$	I_{FSM}	30.0						Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.3						Volts
Maximum DC reverse current at rated DC blocking voltage	I_R			10.0	200.0			μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	100				200		ns
Typical junction capacitance (NOTE 2)	C_J	12.0						pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	41.0						$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-50 to +125						$^\circ\text{C}$
Storage temperature range	T_{STG}	-50 to +150						$^\circ\text{C}$

NOTES:

- (1) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
- (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, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES SRP100A THRU SRP100K

