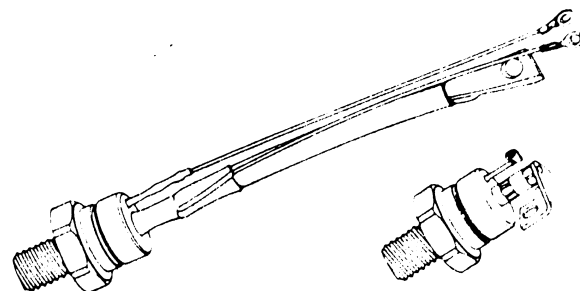


# High Power Silicon Controlled Rectifier

**110 A RMS    25 to 1200 Volts**

**FEATURES:**

- High dv/dt With Selection Available
- Excellent Surge and I<sup>2</sup>t Ratings Providing Easy Fusing
- Rugged Hermetic Package



**MAXIMUM ALLOWABLE RATINGS**

TYPE	REPETITIVE PEAK OFF-STATE VOLTAGE $V_{DRM}^1$ $T_J = -40^\circ\text{C to } +125^\circ\text{C}$	REPETITIVE PEAK REVERSE VOLTAGE $V_{RRM}^1$ $T_J = -40^\circ\text{C to } +125^\circ\text{C}$	NON-REPETITIVE PEAK REVERSE VOLTAGE $V_{RSM}^1$ $T_J = +125^\circ\text{C}$
2N1909	25 Volts	25 Volts	25 Volts
2N191C	50	50	75
2N1911	100	100	150
2N1912	150	150	225
2N1913	200	200	300
2N1914	250	250	350
2N1915	300	300	400
2N1916	400	400	500
	500	500	600
	600	600	720
	700	700	840
	800	800	960
	900	900	1040
	1000	1000	1200
	1100	1100	1320
	1200	1200	1440

<sup>1</sup> Half sine wave waveform, 10 msec, maximum pulse width.

- RMS On-State Current,  $I_{T(RMS)}$  ..... 110 Amperes (All Conduction Angles)
- Average On-State Current,  $I_{T(AV)}$  ..... Depends on Conduction Angles
- Critical Rate-of-Rise of On-State Current (Non-Repetitive) di/dt:\*
- Switching From 1200 Volts ..... 100 Amperes Per Microsecond
- Switching From 600 Volts ..... 200 Amperes Per Microsecond
- Peak One-Cycle Surge (Non-Repetitive) On-State Current,  $I_{TSM}$  (60 Hz) ..... 1000 Amperes
- Peak One-Cycle Surge (Non-Repetitive) On-State Current,  $I_{TSM}$  (50 Hz) ..... 910 Amperes
- I<sup>2</sup>t (for fusing), for times  $\geq$  8.3 milliseconds ..... 4150 (RMS Ampere)<sup>2</sup> Seconds
- I<sup>2</sup>t (for fusing), for times  $\geq$  1.5 milliseconds ..... 2850 (RMS Ampere)<sup>2</sup> Seconds
- Peak Gate Power Dissipation,  $P_{GM}$  ..... 100 Watts for 150 Microseconds
- Average Gate Power Dissipation,  $P_{G(AV)}$  ..... 2 Watts
- Storage Temperature,  $T_{stg}$  ..... -40°C to +150°C
- Operating Temperature,  $T_J$  ..... -40°C to +125°C
- Stud Torque: ..... 125 Lbs.-In. (Min.) – 150 Lbs.-In. (Max.)  
 14 N-m (Min.) – 17 N-m (Max.)