

## PHASE CONTROL SCRS 450 TO 800 AMPERES

TYPE		C380X555	C380X500	C390	C390X555	C391	
Voltage Range		100-1200	100-600	500-1400	500-1200	1300-1800	
IT (RMS)	Max. RMS on-state current (A)	450	500	850	850	850	
IT(AV)	Max. average on-state current @180°C conduction (A)@Tc	315 @ 80°C	375 @ 70°C	500 @ 66°C	-	480 @ 65°C	
IT(AV)	Max. average on-state current for 3 Ø conduction (A) @ Tc @ 80°C	215 @ 70°C	320 @ 50°C	450	-	420	
ITSM	Max. peak one-cycle, 50HZ non-repetitive surge current (A) 60HZ	2900	5000	7600	7600	7000	
		3200	5500	8000	8000	8000	
I <sup>2</sup> t	Max. I <sup>2</sup> t for fusing 1.5 msec (A <sup>2</sup> sec)	42,000	75,000	100,000	100,000	100,000	
VTM	on-state voltage @ 25°C,180° conduction, rated IT(AV) (V)	2.3(+150°C)	1.45	2.0	-	1.9	
RθJC	Max. thermal resistance, dc, junction-to-case (°C/W)	.95	.095	.06	.06	.06	
tq	Typical turn-off time (µsec) @ Max. Tj	75	150	125	200	200	
di/dt	Rate-of-rise of on current (A/us)	300	200	500	800	150	
Tj	Operating junction temperature (°C)	-40 to 150	-40 to 125	-40 to 125	-40 to 125	-40 TO 125	
QRR	Max. reverse recovered charge (µC) Tj =25°C	200	-	250	250	425	
DV/dt	Max. critical rate-of-rise of off-state voltage @ max. rated Tj (V/µs)	200	200	200	200	200	
IGT	Gate current to trigger @ -40°C (mA) @ + 25°C (mA)	200	200	300	300	300	
		150	150	150	150	150	
VGT	Max. required gate voltage to trigger (V) (-40 to + 125 °C)	3	3	5	5	5	
VF	Peak on-state Voltage @ the following parameters	IMIN(A)	60	60	300	100	300
		IMAX(A)	4000	2000	5000	8000	7000
		A	-.08	.45	-3.78	.533	.593
		B	.29	.011	1.3	.06	-1.33
		C	.002	.0002	.002	.0005	.0005
RθJC	Transient thermal resistance @ the following parameters	D	-.04	.0248	.18	.003	.166
		TMIN(S)	-	-	-	-	-
		TMAX(S)	.001	.001	.001	.001	.001
		F	.122	.152	.243	.243	.243
		G	.336	.368	.578	.577	.577
Package Outline.		TO-200AB	TO-200AB	TO-200AC	TO-200AC	TO-200AC	
Maximum Stud Torque (In-Lbs/N-M)		-	-	-	-		
Max. Mounting Force	Lbs	800	800	2500	2500	2500	
	KN	3.56	7.56	11.1	11.1	11.1	