

PHASE CONTROL SCRS 1950 TO 2200 AMPERES

TYPE		C701	C784	C451-2	C450-2	C451-1	
Voltage Range		1100-2100	2400-4300	500-1800	500-1400	500-1800	
IT (RMS)	Max. RMS on-state current (A)	1950	2120	2100	2200	2200	
IT(AV)	Max. average on-state current @180°C conduction (A)@Tc	1250 @ 70°C	1350 @ 70°C	1300 @70°C	1360 @ 70°C	1390 @ 70°C	
IT(AV)	Max. average on-state current for 3 Ø conduction (A) @ Tc @ 80°C	1000 @ 70°C	-	1020 @ 70°C	1150 @ 70°C	1060 @ 70°C	
ITSM	Max. peak one-cycle, 50HZ non-repetitive surge current (A) 60HZ	18,000	22,500	-	24,000	-	
		20,000	25,000	21,000	25,000	21,000	
I ² t	Max. I ² t for fusing 1.5 msec (A ² sec)	820,000	450,000	-	1,050,000	-	
VTM	on-state voltage @ 25°C,180° conduction, rated IT(AV) (V)	2.0	2.25	2.1	1.8	1.9	
RθJC	Max. thermal resistance, dc, junction-to-case (°C/W)	.023	.012	.025	.025	.025	
tq	Typical turn-off time (µsec) @ Max. Tj	125	200	150	150	150	
di/dt	Rate-of-rise of on current (A/us)	100	100	75	400	75	
Tj	Operating junction temperature (°C)	-40 to 125	-40 to 125	-40 to 125	-40 to 125	-40 to 125	
QRR	Max. reverse recovered charge (µC) Tj =25°C	-	-	-	1300	-	
DV/dt	Max. critical rate-of-rise of off-state voltage @ max. rated Tj (V/µs)	200	500	400	400	400	
IGT	Gate current to trigger @ -40°C (mA) @ + 25°C (mA)	275	400	-	300	300	
		50	250	300	200	200	
VGT	Max. required gate voltage to trigger (V) (-40 to + 125 °C)	4.5	5.5	4.5	5.0	5.0	
VF	Peak on-state Voltage @ the following parameters	IMIN(A)	200	500	200	1000	200
		IMAX(A)	20,000	24,000	10,000	20,000	10,000
		A	.63	.656	.688	.39	1.06
		B	.04	.106	.07	.07	-.06
		C	.0003	.0003	.0003	.0001	.0002
RθJC	Transient thermal resistance @ the following parameters	D	-.0008	-.001	-.004	.003	.009
		TMIN(S)	.01	.001	.001	.001	.001
		TMAX(S)	.1	.01	.01	.01	.01
		F	.037	.018	.55	.55	.55
		G	.36	.67	.632	.632	.632
Package Outline.		Modified TO-200AC	DISC	Modified TO-200AC	Modified TO-200AC	Modified TO-200AC	
Maximum Stud Torque (In-Lbs/N-M)		-	-	-	-	-	
Max. Mounting Force	Lbs	6000	7000	5500	5500	5500	
	KN	26.6	31.2	24.5	24.5	24.5	