

PHASE CONTROL SCR's HIGH CURRENT 235 TO 470 AMPERES

GE TYPE	C180	C280	C380	C282, 283	C286, 287	C290, 291
ELECTRICAL SPECIFICATIONS						
VOLTAGE RANGE	500-1300	700-1700	500-1300	600-1700	800-1700	100-1200
FORWARD CONDUCTION						
$I_{T(RMS)}$ Max. RMS on-state current (A)	235	235	380	400	400	470
$I_{T(AV)}$ Max. average on-state current @ 180° conduction (A) @ T_C	150 @ 88°C	150 @ 90°C	235 @ 80°C	200 @ 80°C	225 @ 80°C	300 @ 76°C
$I_{T(AV)}$ Max. average on-state current @ 120° conduction (A) @ T_C	122 @ 83°C	125 @ 90°C	180 @ 80°C	175 @ 80°C	200 @ 80°C	250 @ 80°C
I_{TSM} Max. peak one cycle, non-repetitive surge current (A)	3500	3500	3500	4500	5000	5500
I^2t Max. I^2t for fusing for 5 to 8.3 msec ($A^2 \text{ sec}$)	50,000	50,000	50,000	85,000	100,000	120,000
V_{FM} Peak on-state voltage @ 125°C, 180° conduction, rated $I_{T(AV)}$ (V)	1.6	1.36	2.0	1.3	1.3	1.4
θ_{J-C} Max. internal thermal resistance, dc, junction-to-case ($^{\circ}C/W$)	.14	.18	.095	.136	.136	.118
t_o Typical turn-off time (μsec)	125	250	125	250	250	250
t_d+t_r Typical turn-on time (μsec)	8	10	8	10	10	10
di/dt Rate-of-rise turned-on current ($A/\mu\text{sec}$)	50-100	50	50-100	50	50	50
T_J Junction operating temperature range($^{\circ}C$)	-40 to 125°C	-40 to 125°C	-40 to 125°C	-40 to 120°C	-40 to 125°C	-40 to 125°C
BLOCKING						
dv/dt Min. critical rate-of-rise of off-state voltage, exponential @ max. rated T_J ($V/\mu\text{sec}$)	200	100	200	100	100	100
FIRING						
I_{GT} Max. required gate current to trigger (mA) @ -40°C	200	200	200	300	300	300
@ 125°C	125	125	125	100	100	100
V_{GT} Max. required gate voltage to trigger (V) @ -40°C	3	3	3	3.5	3.5	3.5
@ 125°C	.15	.15	.15	.15	.15	.15
PACKAGE TYPE	3/4" STUD	3/4" STUD	1/2" PRESS PAK	3/4" STUD	3/4" STUD	3/4" STUD
VOLTAGE TYPES						
Repetitive Peak Forward and Reverse Voltages						
100	CONSULT FACTORY	CONSULT FACTORY	C380A	CONSULT FACTORY	CONSULT FACTORY	C290A, C291A
200			C380B			C290B, C291B
300			C380C			C290C, C291C
400			C380D			C290D, C291D
500			C180E			C380E
600	C180M	C280M	C380M	C282M, C283M	C286M, C287M	C290M, C291M
700	C180S	C280S	C380S	C282S, C283S	C286S, C287S	C290S, C291S
800	C180N	C280N	C380N	C282N, C283N	C286N, C287N	C290N, C291N
900	C180T	C280T	C380T	C282T, C283T	C286T, C287T	C290T, C291T
1000	C180P	C280P	C380P	C282P, C283P	C286P, C287P	C290P, C291P
1100	C180PA	C280PA	C380PA	C282PA, C283PA	C286PA, C287PA	C290PA, C291PA
1200	C180PB	C280PB	C380PB	C282PB, C283PB	C286PB, C287PB	C290PB, C291PB
1300	C180PC	C280PC	C380PC	C282PC, C283PC	C286PC, C287PC	
1400		C280PD		C282PD, C283PD	C286PD, C287PD	
1500		C280PE		C282PE, C283PE	C286PE, C287PE	
1600		C280PM		C282PM, C283PM	C286PM, C287PM	
1700		C280PS		C282PS, C283PS	C286PS, C287PS	
PACKAGE OUTLINE NO.	110	287, 288	109.1	287, 288	287, 288	287, 288
SPECIFICATION SHEET NO.	170.52	170.58	170.56	CONTACT FACTORY	CONTACT FACTORY	170.60

See Trigger Selector Guide page 33.

