

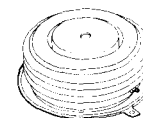
PHASE CONTROL SCR's HIGH CURRENT 850 TO 1400 AMPERES

GE TYPE	C501	C530	C520	C600	C601	C602	
ELECTRICAL SPECIFICATIONS							
VOLTAGE RANGE	700 - 1700	100 - 600	100 - 400	500 - 1200	1100 - 1700	1600 - 2600	
FORWARD CONDUCTION							
$I_{T(RMS)}$ Max. RMS on-state current (A)	850	1100	1250	1400	1100	940	
$I_{T(AV)}$ Max. average on-state current @ 180° conduction (A) @ T_C	550 @ 67°C	700 @ 80°C	800 @ 75°C	900 @ 72°C	750 @ 72°C	600 @ 78°C	
$I_{T(AV)}$ Max. average on-state current @ 120° conduction (A) @ T_C	400 @ 80°C	600 @ 80°C	700 @ 75°C	720 @ 80°C	600 @ 80°C	500 @ 80°C	
I_{TSM} Max. peak one cycle, non-repetitive surge current (A)	7000	10,000	10,000	13,000	10,500	6500	
I^2t Max. I^2t for fusing for 5 to 8.3 msec (A^2 sec)	200,000	415,000	415,000	700,000	516,000	176,000	
V_{FM} Peak on-state voltage @ 125°C, 180° conduction, rated $I_{T(AV)}$ (V)	1.5	1.4	1.6	1.6	2.0	2.3	
θ_{J-C} Max. internal thermal resistance, dc, junction-to-case (°C/W)	.059	.054	.054	.041	.041	.041	
t_q Typical turn-off time (μ sec)	250	150	150	200	275	300	
$t_d + t_r$ Typical turn-on time (μ sec)	4	4	4	5	5	5	
di/dt Rate-of-rise turned-on current (A/μ sec)	30 - 75	75	75	30 - 75	30 - 75	30 - 75	
T_J Junction operating temperature range(°C)	-40 to 125°C	-40 to 125°C	-40 to 150°C	-40 to 125°C	-40 to 125°C	-40 to 125°C	
BLOCKING							
dv/dt Min. critical rate-of-rise of off-stage voltage, exponential @ rated T_J (V/μ sec)	100	50 TYP	50 TYP	100	100	100	
FIRING							
I_{GT} Max. required gate current to trigger (mA) @ -40°C	225	300	300	---	---	---	
@ 125°C	75	125	125	75	---	75	
V_{GT} Max. required gate voltage to trigger (V) @ -40°C	6.5	4	4	6.5	---	6.5	
V_{GT} Min. required gate voltage to trigger (V) @ 125°C	.15	.15	.15	.3	---	.3	
PACKAGE TYPE	1" PRESS PAK	1" PRESS PAK	1" PRESS PAK	1" PRESS PAK	1" PRESS PAK	1" PRESS PAK	
VOLTAGE TYPES							
Repetitive Peak Forward and Reverse Voltages							
100	CONSULT FACTORY	C530A	C520A	CONSULT FACTORY		C602 SERIES VOLTAGE CAPABILITY 1600 THRU 2600 VOLTS	
200		C530B	C520B				
300		C530C	C520C				
400		C530D	C520D				
500		C530E					C600E
600		C501M	C530M				C600M
700		C501S					C600S
800		C501N					C600N
900		C501T					C600T
1000		C501P					C600P
1100	C501PA		C600PA	C601PA	SEE DETAILED SPECIFICATION		
1200	C501PB		C600PB	C601PB			
1300	C501PC			C601PC			
1400	C501PD			C601PD			
1500	C501PE			C601PE			
1600	C501PM			C601PM			
1700	C501PS			C601PS			
PACKAGE OUTLINE NO.	185	185	185	276		276	276
SPECIFICATION SHEET NO.	170.70	170.82	170.81	CONTACT FACTORY	CONTACT FACTORY	CONTACT FACTORY	

See Trigger Selector Guide page 33.



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