

# SEMITRONICS

## PHASE CONTROL SCR'S

25 TO 35 AMPS – Metallic Stud

TYPE		C230-2	C231-3	C228-9	C35	C38
JEDEC		-	-	-	-	
<b>ELECTRICAL SPECIFICATIONS</b>						
VOLTAGE RANGE		25-600	25-600	50-600	25-700	25-500
<b>FORWARD CONDUCTION</b>						
$I_{T(RMS)}$	MAX, RMS ON-STATE CURRENT (A)	25	25	35	35	35
$I_{T(AV)}$	MAX. AVERAGE ON-STATE CURRENT @ 180 CONDUCTION (A) @ $T_c$ (°C)	16 @ 70°C	16 @ 70°C	20 @ 73°C	20 @ 35°C	22.5 @ 70°C
$I_{TSM}$	MAX PEAK ONE CYCLER, NON-REPETITIVE SURGE CURRENT (A)	300	300	300	150	150
$I^2_T$	MAX. $I^2_T$ FOR FUSING FOR $\geq 1.5$ MSEC ( $A^2$ SEC).	260	250	260	75	75
$V_{TM}$	MAX. PEAK ON-STATE VOLTAGE @ 25°C, 180° CONDUCTION, RATED $I_{T(AV)}$ (V)	1.5	1.5	1.5	1.6	1.6

$R_{\theta JC}$	MAX. INTERNAL THERMAL RESISTANCE, DC, JUNCTION-TO-CASE ( $^{\circ}C/W$ )	1.0	1.0	1.7	1.7	1.5
$I_H$	MAX. HOLDING CURRENT @ $25^{\circ}C$ (mA)	50	50	75	100	80
$T_Q$	TYPICAL TURN-ON TIME ( $\mu$ SEC) @ $100^{\circ}C$	-	-	-	-	25
$T_D+T_R$	TYPICAL TURN-ON TIME ( $\mu$ SEC)	3	3	-	1.6	1.6
$dI/dT$	MAX. RATE-OF-RISE TURNED-ON CURRENT (A/ $\mu$ SEC)	20	20	-	80	80
$T_J$	JUNCTION OPERATING TEMPERATURE RANGE (C)	-40 TO 100	-40 TO 100	-40 TO 125	-65 TO 125	-65 TO 150

### BLOCKING

$dV/dT$	TYPICAL CRITICAL RATE-OF-RISE OF OFF-STATE VOLTAGE. EXPONENTIAL @ MAX. RATED $T_J$ (V)/ $\mu$ SEC)	100	100	50	50	20
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### FIRING

$I_{GT}$	MAX. REQUIRED GATE CURRENT TO TRIGGER (mA)					
	@-65 $^{\circ}C$	-	-	-	80	80
	@-40 $^{\circ}C$	40	20	80	-	-
	@-25 $^{\circ}C$	25	9	40	40	40
$V_{GT}$	MAX. REQUIRED GATE VOLTAGE TO TRIGGER (V)					
	@-65 $^{\circ}C$	-	-	-	3.0	3.0
	@-40 $^{\circ}C$	2.0	2.0	3.0	-	-
	@-25 $^{\circ}C$	1.5	1.5	2.5	2.0	2.0

V <sub>GT</sub>	MIN. REQUIDED GATE					
<b>VOLTAGE TYPES</b>						
<b>REPETTIVE PEAK FORWARD AND REVERSE VOLTAGES</b>						
	@-150 °C	-	-	-	-	.015
	25	C230/2U	C231/3U	C228/9U	C35U	C38U
	50	C230/2F	C231/3F	C228/9F	C35F	C38F
	100	C230/2A	C231/3A	C228/9A	C35A	C38A
	150	-	-	-	C35G	C38G
	200	C230/2B	C231/3B	C228/9B	C35B	C38B
	250	-	-	-	C35H	C38H
	300	C230/2C	C231/3C	C228/9C	C35C	C38C
	400	C230/2D	C231/3D	C228/9D	C35D	C38D
	500	C230/2E	C231/3E	C228/9E	C35E	C38E
	600	C230/2M	C231/3M	C228/9M	C35M	-
	700	-	-	-	C35S	-
	800	-	-	-	-	-

[INFORMATION REQUEST](#)

