

# New Jersey Semi-Conductor Products, Inc.

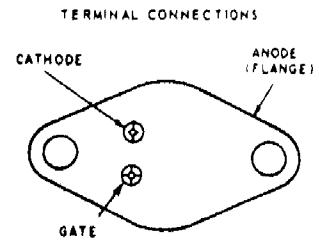
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## S2200(2N3528, 2N3529, 2N4102), S2710, S2700(2N3228, 2N3525, 2N4101, Series

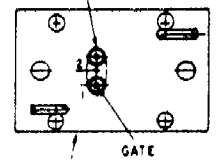
### 5-A Silicon Controlled Rectifiers

RATINGS	CONTROLLED RECTIFIER TYPES						UNITS
	2N3228 S2710B	2N3525 S2710B	2N4101 S2710M	2N3528	2N3529	2N4102	
Transient Peak Reverse Voltage (Non-Repetitive), $V_{RM}$ (non-rep) . . . . .	330	660	700	330	660	700	volts
Peak Reverse Voltage (Repetitive), $V_{RM}$ (rep) . . . . .	200	400	600	200	400	600	volts
Peak Forward Blocking Voltage (Repetitive), $V_{FBOM}$ (rep) . . . . .	200	400	600	200	400	600	volts
Forward Current:							
For case temperature ( $T_C$ ) of + 75°C, and unit mounted on heat sink -							
Average DC value at a conduction angle of 180°, $I_{FAV}$ . . . . .	3.2	3.2	3.2	—	—	—	amperes
RMS value, $I_{FRMS}$ . . . . .	5.0	5.0	5.0	—	—	—	amperes
For other conditions, See Fig. 2							
For free-air temperature ( $T_{FA}$ ) of 25°C, and with no heat sink employed -							
Average DC value at a conduction angle of 180°, $I_{FAV}$ . . . . .	1.7	1.7	1.7	1.3	1.3	1.3	amperes
RMS value, $I_{FRMS}$ . . . . .	—	—	—	2.0	2.0	2.0	amperes
For other conditions, See Figs. 3 & 4							
Peak Surge Current, $I_{FM}$ (surge) :							
For one cycle of applied principal voltage,							
60 Hz (sinusoidal), $T_C = 75^\circ\text{C}$ . . . . .		60			60		ampere
50 Hz (sinusoidal), $T_C = 75^\circ\text{C}$ . . . . .		50			50		ampere
For more than one cycle of applied voltage. . . . .		See Fig. 5			See Fig. 5		
Fusing Current (for SCR protection): $T_J = -40$ to $100^\circ\text{C}$ , $t = 1$ to $8.3$ ns, $I^2t$		15			15		ampere <sup>2</sup> second
Rate of Change of Forward Current, $di/dt$ . . . . .		200			200		amperes/ microsecond
$V_{FB} = V_{B00}$ (min. value) $I_{GT} = 200$ mA, $0.5 \mu\text{s}$ rise time							
Gate Power*:							
Peak, Forward or Reverse, for $10 \mu\text{s}$ duration, $P_{GM}$ . (See Figs. 7 and 9)		13			13		watts
Average, $P_{GAV}$ . . . . .		0.5			0.5		watt
Temperature:							
Storage, $T_{stg}$ . . . . .		-40 to +125			-40 to +125		°C
Operating (Case), $T_C$ . . . . .		-40 to +100			-40 to +100		°C



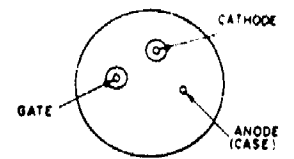
92CS-27720

BOTTOM VIEW  
 JEDEC TO-66  
 CATHODE



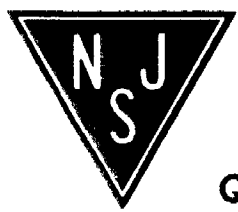
92CS-27725

BOTTOM VIEW  
 TO-66 with Heat Radiator



92CS-27722

BOTTOM VIEW  
 JEDEC TO-8



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**Quality Semi-Conductors**