

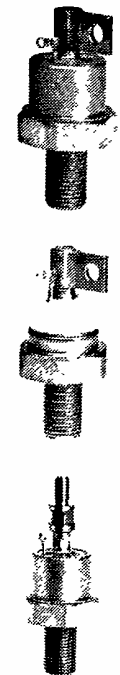
# Inverter Grade SCRs

| $I_{T(RMS)}$<br>$T_c = 65^\circ C$<br>50% Duty<br>Cycle, Half<br>Sine 1KHz<br>(Amps) | $I_{TSM}$<br>(Amps) |       | $I_{DRM}/I_{RRM}$<br>@ Rated<br>$V_{DRM}/V_{RRM}$<br>and $T_{J(Max)}$<br>(mA) | $I^2t$<br>for<br>Fusing<br>@ 8.3 ms<br>( $A^2sec \times 10^4$ ) | $V_{DRM}/V_{RRM}$<br>Range<br>(Volts) | $V_{TM}$<br>@ $I_{TM}$<br>$T_J = 25^\circ C$ |                     | Chip<br>Size<br>(mm) | Junction<br>Temp.<br>Range<br>( $^\circ C$ ) | $R_{\theta JC}$<br>( $^\circ C/W$ ) | $t_q(Max)$<br>@ $T_{J(Max)}$<br>( $\mu sec$ ) |
|--------------------------------------------------------------------------------------|---------------------|-------|-------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------|----------------------------------------------|---------------------|----------------------|----------------------------------------------|-------------------------------------|-----------------------------------------------|
|                                                                                      | 50 Hz               | 60 Hz |                                                                               |                                                                 |                                       | $I_{TM}$<br>(Amps)                           | $V_{TM}$<br>(Volts) |                      |                                              |                                     |                                               |
| 250                                                                                  | 1500                | 1600  | 15-18                                                                         | 1.06                                                            | 500-1400                              | 500                                          | 3.5                 | 18                   | -40 to 125                                   | .135                                | 40                                            |
| 240                                                                                  | 3200                | 3500  | 25                                                                            | 5.1                                                             | 100-1200                              | 625                                          | 2.35                | 23                   | -40 to 125                                   | .13                                 | 10 to 50                                      |
| 250                                                                                  | 3200                | 3500  | 20                                                                            | 5.1                                                             | 100-800                               | 1500                                         | 2.85                | 22                   | -40 to 125                                   | .15                                 | 20                                            |
| 250                                                                                  | 3600                | 4000  | 25                                                                            | 6.6                                                             | 100-1200                              | 625                                          | 2.1                 | 23                   | -40 to 125                                   | .13                                 | 10 to 50                                      |
| 250                                                                                  | 1700                | 1800  | 17                                                                            | 1.34                                                            | 100-600                               | 500                                          | 3                   | 18                   | -40 to 125                                   | .13                                 | 10                                            |
| 250                                                                                  | 1700                | 1800  | 17                                                                            | 1.34                                                            | 100-600                               | 500                                          | 3                   | 18                   | -40 to 125                                   | .13                                 | 20                                            |
| 260                                                                                  | 1700                | 1800  | 17                                                                            | 1.34                                                            | 100-800                               | 500                                          | 2.6                 | 18                   | -40 to 125                                   | .135                                | 10                                            |
| 260                                                                                  | 1700                | 1800  | 17                                                                            | 1.34                                                            | 100-800                               | 500                                          | 2.6                 | 18                   | -40 to 125                                   | .135                                | 20                                            |
| 270                                                                                  | 4150                | 4500  | 25                                                                            | 8.4                                                             | 100-1200                              | 625                                          | 1.85                | 23                   | -40 to 125                                   | .13                                 | 10 to 50                                      |
| 300                                                                                  | 6400                | 7000  | 30                                                                            | 20.5                                                            | 100-1200                              | 625                                          | 1.65                | 33                   | -40 to 125                                   | .10                                 | 25 to 60                                      |
| 300                                                                                  | 5400                | 6000  | 35                                                                            | 15                                                              | 1400-1800                             | 1500                                         | 3.15                | 33                   | -40 to 125                                   | .06                                 | 40 to 60                                      |
| 325                                                                                  | 5000                | 5500  | 45                                                                            | 12.6                                                            | 500-1200                              | 3000                                         | 4.2                 | 30                   | -40 to 125                                   | .06                                 | 40                                            |
| 325                                                                                  | 5000                | 5500  | 45                                                                            | 12.6                                                            | 500-1200                              | 3000                                         | 4.2                 | 30                   | -40 to 125                                   | .06                                 | 30                                            |
| 345                                                                                  | 3200                | 3500  | 25                                                                            | 5.1                                                             | 100-1200                              | 625                                          | 2.35                | 23                   | -40 to 125                                   | .08                                 | 10 to 50                                      |
| 375                                                                                  | 3600                | 4000  | 25                                                                            | 6.6                                                             | 100-1200                              | 625                                          | 2.1                 | 23                   | -40 to 125                                   | .08                                 | 10 to 50                                      |
| 400                                                                                  | 6400                | 6800  | 35                                                                            | 19.2                                                            | 1400-1800                             | 1500                                         | 2.2                 | 33                   | -40 to 125                                   | .06                                 | 80 to 100                                     |
| 410                                                                                  | 6500                | 7000  | 30                                                                            | 20.4                                                            | 100-1000                              | 625                                          | 1.5                 | 33                   | -40 to 125                                   | .10                                 | 10 to 50                                      |
| 410                                                                                  | 7300                | 8000  | 30                                                                            | 26.6                                                            | 100-1400                              | 625                                          | 1.45                | 33                   | -40 to 125                                   | .10                                 | 25 to 60                                      |

\* = 25°C Value

x = ASCR,  $V_{RRM} = 10VDC$  Max.

| $Q_{rr}(\text{Max})$<br>@<br>$T_J = 25^\circ\text{C}$<br>( $\mu\text{coul}$ ) | Min<br>$dI/dt$<br>Repetitive<br>on-State<br>(A/ $\mu\text{sec}$ ) | Min<br>Critical<br>$dV/dt$<br>@ $T_J(\text{Max})$<br>(V/ $\mu\text{sec}$ ) | Max<br>VGT<br>(V) | Max<br>IGT<br>(mA) | PACKAGE INFORMATION                               |                           |          |             |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------|--------------------|---------------------------------------------------|---------------------------|----------|-------------|
|                                                                               |                                                                   |                                                                            |                   |                    | Max<br>Mounting<br>Force or<br>Torque             | STYLE                     | Outline  | TYPE NO.    |
| 25                                                                            | 500                                                               | 200                                                                        | 5                 | 500                | $\frac{300 \text{ lb-in}}$<br>$348 \text{ kg-cm}$ | $\frac{3}{4}$ -16<br>Stud | TO-93    | C185        |
| —                                                                             | 500                                                               | 200                                                                        | 5                 | 300                | $\frac{800 \text{ lbs}}$<br>$3.56 \text{ KN}$     | Press<br>Pak              | TO-200AB | C358        |
| —                                                                             | 200                                                               | 300                                                                        | 3*                | 150*               | $\frac{300 \text{ lb-in}}$<br>$348 \text{ kg-cm}$ | $\frac{3}{4}$ -16<br>Stud | TO-93    | T607 __ _13 |
| —                                                                             | 250                                                               | 300                                                                        | 3*                | 150*               | $\frac{300 \text{ lb-in}}$<br>$348 \text{ kg-cm}$ | $\frac{3}{4}$ -16<br>Stud | TO-93    | T607 __ _15 |
| —                                                                             | 500                                                               | 200                                                                        | 5                 | 200                | $\frac{800 \text{ lbs}}$<br>$3.56 \text{ KN}$     | Press<br>Pak              | TO-200AB | C354        |
| —                                                                             | 500                                                               | 100                                                                        | 5                 | 200                | $\frac{800 \text{ lbs}}$<br>$3.56 \text{ KN}$     | Press<br>Pak              | TO-200AB | C355        |
| —                                                                             | 500                                                               | 200                                                                        | 5                 | 400                | $\frac{800 \text{ lbs}}$<br>$3.56 \text{ KN}$     | Press<br>Pak              | TO-200AB | C364        |
| —                                                                             | 500                                                               | 200                                                                        | 5                 | 400                | $\frac{800 \text{ lbs}}$<br>$3.56 \text{ KN}$     | Press<br>Pak              | TO-200AB | C365        |
| —                                                                             | 300                                                               | 300                                                                        | 3*                | 150*               | $\frac{300 \text{ lb-in}}$<br>$348 \text{ kg-cm}$ | $\frac{3}{4}$ -16<br>Stud | TO-93    | T607 __ _18 |
| —                                                                             | 300                                                               | 300                                                                        | 3*                | 150*               | $\frac{360 \text{ lb-in}}$<br>$420 \text{ kg-cm}$ | $\frac{3}{4}$ -16<br>Stud | T70      | T707 __ _25 |
| —                                                                             | 300                                                               | 300                                                                        | 3*                | 150*               | $\frac{2400 \text{ lbs}}$<br>$10.7 \text{ KN}$    | Press<br>Pak              | T72      | T72H __ _30 |
| —                                                                             | 500                                                               | 200                                                                        | 5                 | 300                | $\frac{2000 \text{ lbs}}$<br>$8.9 \text{ KN}$     | Press<br>Pak              | TO-200AC | C387        |
| —                                                                             | 500                                                               | 200                                                                        | 5                 | 300                | $\frac{2000 \text{ lbs}}$<br>$8.9 \text{ KN}$     | Press<br>Pak              | TO-200AC | C388        |
| —                                                                             | 200                                                               | 300                                                                        | 3*                | 150*               | $\frac{1400 \text{ lbs}}$<br>$6.25 \text{ KN}$    | Press<br>Pak              | T62      | T627 __ _15 |
| —                                                                             | 250                                                               | 300                                                                        | 3*                | 150*               | $\frac{1400 \text{ lbs}}$<br>$6.25 \text{ KN}$    | Press<br>Pak              | T62      | T627 __ _20 |
| —                                                                             | 400                                                               | 300                                                                        | 3*                | 150*               | $\frac{2400 \text{ lbs}}$<br>$10.7 \text{ KN}$    | Press<br>Pak              | T72      | T72H __ _42 |
| —                                                                             | 300                                                               | 300                                                                        | 3*                | 150*               | $\frac{360 \text{ lb-in}}$<br>$420 \text{ kg-cm}$ | $\frac{3}{4}$ -16<br>Stud | T70      | T707 __ _28 |
| —                                                                             | 400                                                               | 300                                                                        | 3*                | 150*               | $\frac{360 \text{ lb-in}}$<br>$420 \text{ kg-cm}$ | $\frac{3}{4}$ -16<br>Stud | T70      | T707 __ _30 |



JEDEC TO-83

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