

## FEATURES

- Available in Normal & Reverse Polarity
- All Diffused Series
- Industrial Grade
- Available in Avalanche Characteristic

## TYPICAL APPLICATIONS

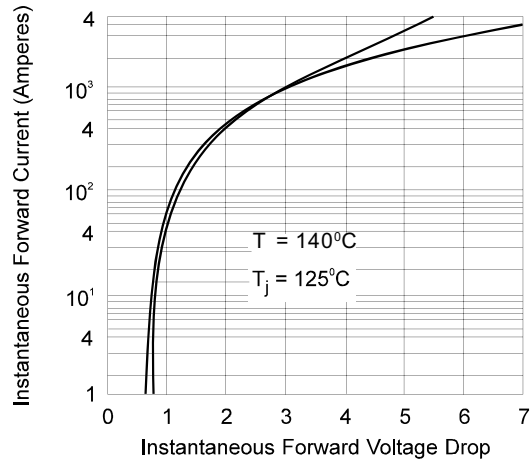
- AV K- SEG alternators

## TECHNICAL DATA

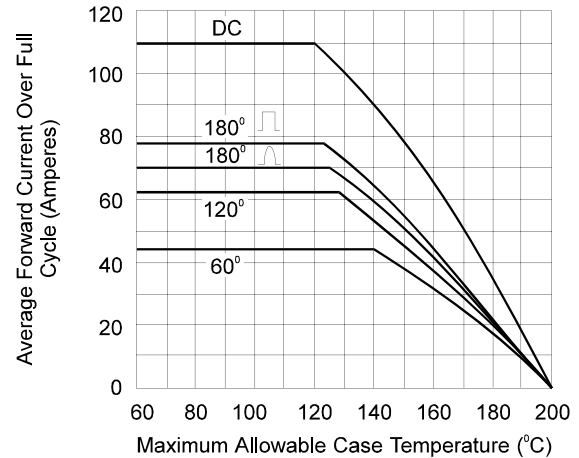
| DEVICE TYPE     | $V_{RRM}$<br>(V) | $V_{RSM}$<br>(V) |
|-----------------|------------------|------------------|
| 70NC160/70RC160 | 1600             | 1700             |



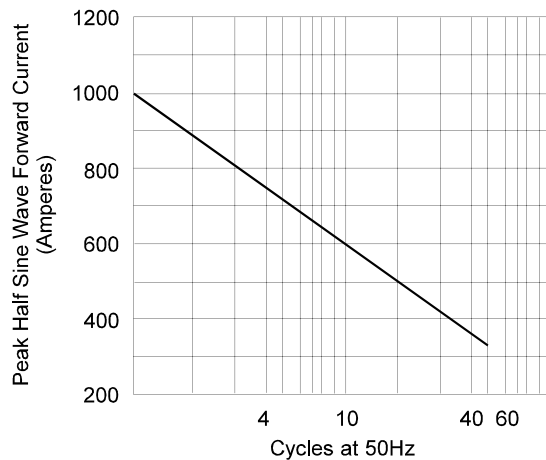
| SYMBOL                                                  | CONDITIONS                                                                                                                                       | VALUES                                                                                                     |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| $I_{F(AV)}$                                             | Maximum average forward Current $T_c = 140^{\circ}\text{C}$                                                                                      | 70A                                                                                                        |
| $V_{FM}$                                                | Maximum peak forward Voltage drop @ Rated $I_F$ (Peak)                                                                                           | 1.35 V                                                                                                     |
| $I_{FSM}$                                               | Maximum peak one cycle (non-rep.) surge current 10 msec                                                                                          | 1200 A                                                                                                     |
| $I^2t$                                                  | Max. $I^2t$ rating (non-rep.) for 10 msec                                                                                                        | 7100 A <sup>2</sup> Sec                                                                                    |
| $I_{RRM}$                                               | Peak reverse current at $T_{vj} = 140^{\circ}\text{C}$                                                                                           | 10 mA                                                                                                      |
| $V_0$<br>$R_0$                                          | $T_{vj}=\text{max}$<br>$T_{vj}=\text{max}$                                                                                                       | 0.85 V<br>3.0 m $\Omega$                                                                                   |
| $R_{th(j-c)}$<br>$R_{th(c-h)}$<br>$T_{vj}$<br>$T_{stg}$ | Maximum thermal resistance ( Junction to case)<br>Maximum thermal resistance ( Case to heat sink)<br>Junction temperature<br>Storage temperature | 0.45 $^{\circ}\text{C/W}$<br>0.25 $^{\circ}\text{C/W}$<br>180 $^{\circ}\text{C}$<br>180 $^{\circ}\text{C}$ |
| Mounting torque                                         |                                                                                                                                                  | 4 Nm                                                                                                       |
| Weight                                                  | Approx.                                                                                                                                          | 46 gms                                                                                                     |
| Package Outline                                         |                                                                                                                                                  | C                                                                                                          |



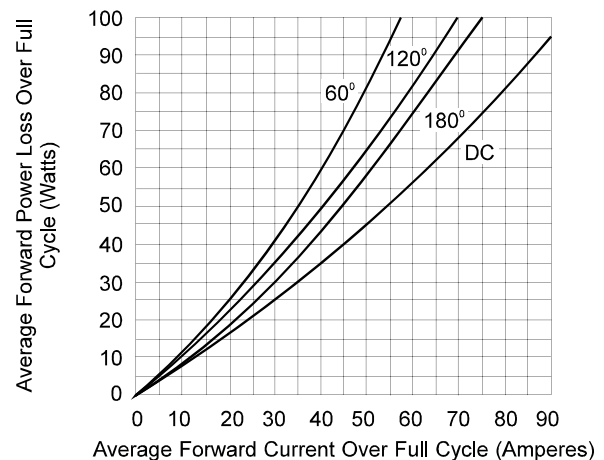
**Fig. 1 - Forward Voltage Drop Vs. Forward Current**



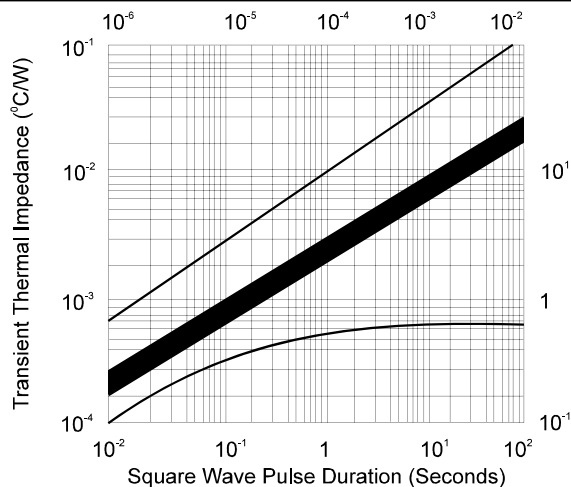
**Fig. 2 - Average Forward Current Vs. Case Temperature**



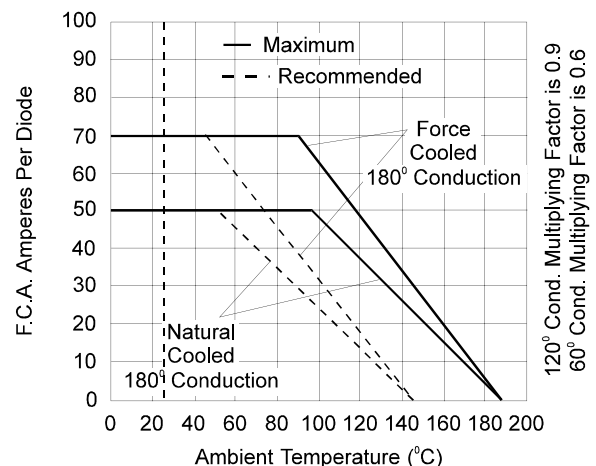
**Fig. 3 - Maximum Non Recurrent Surge Current**



**Fig. 4 - Maximum Forward Power Loss Vs. Low Level Forward Current**

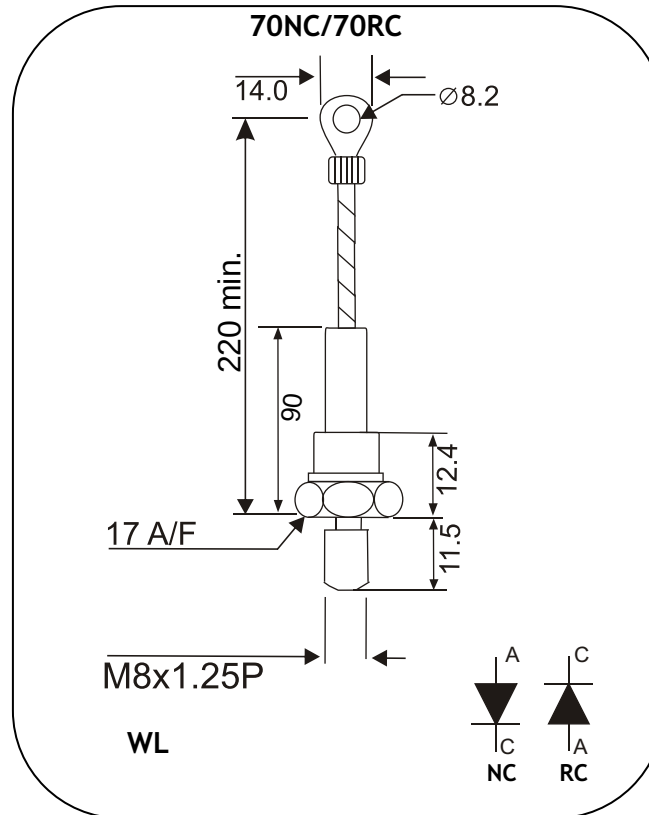


**Fig. 5 - Transient Thermal Impedance**



**Fig. 6 - Diode Mounted on Heat Sink Type K4 with  $\theta_{HA-NC-0.95^\circ \text{C/W}}$ , FC  $0.30^\circ \text{C/W}$**

## PACKAGE OUTLINE



All dimensions are in mm.

## Insel Rectifiers (India) Pvt. Ltd.

(An ISO 9001:2015, ISO 14001:2015 Certified Company)

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