

FEATURES

- Suitable for PCB mounting and wave soldering
- Low thermal impedance through use of direct Copper bonded aluminum substrate (DCB) Base plate
- Blocking voltage up to 1800V

TYPICAL APPLICATIONS

- Input rectifiers for the variable frequency drive
- Rectifiers for DC motor field supplies
- Three phase rectifiers for power supplies
- Battery charger rectifiers

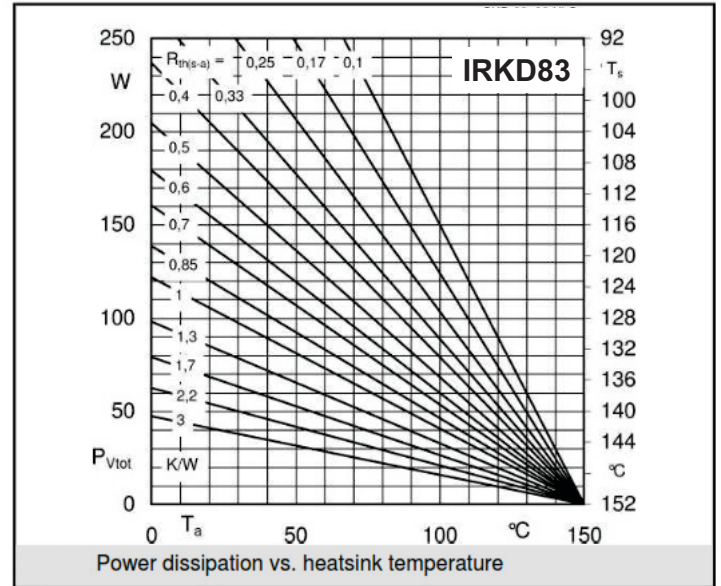
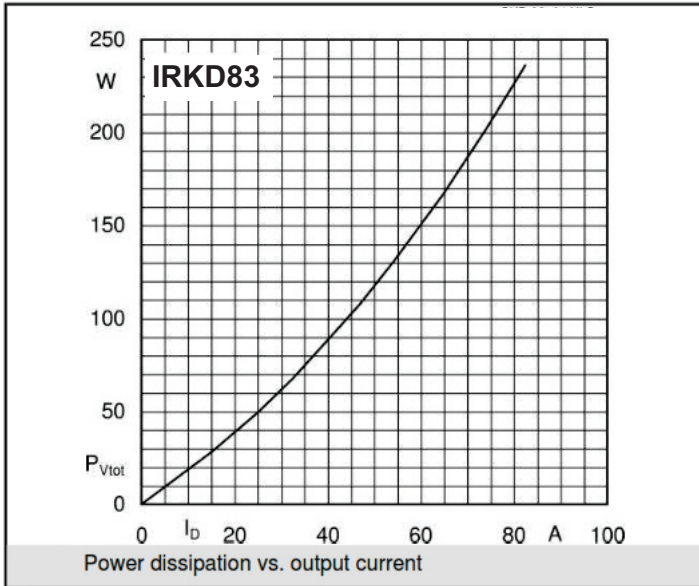
TECHNICAL DATA

| DEVICE TYPE | V _{RRM} (V) | V _{RSM} (V) |
|-------------|-------------------------|-------------------------|
| IKD83/04 | 400 | 500 |
| IKD83/08 | 800 | 900 |
| IKD83/12 | 1200 | 1300 |
| IKD83/14 | 1400 | 1500 |
| IKD83/16 | 1600 | 1700 |
| IKD83/18 | 1800 | 1900 |

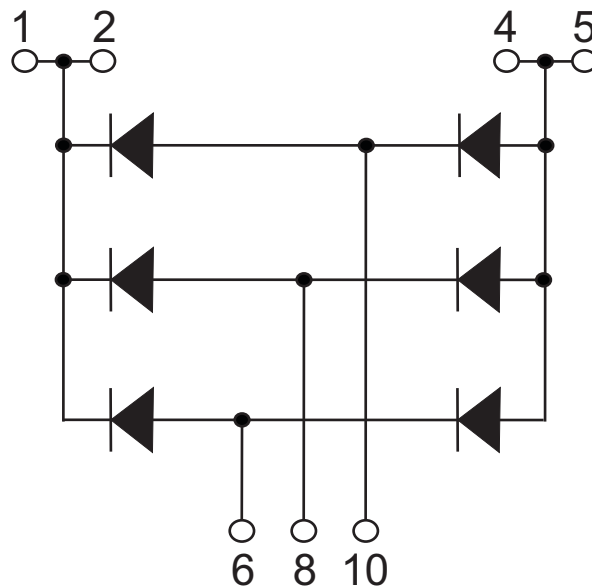


| SYMBOL | CONDITIONS | VALUES |
|----------------------|---|--|
| I _D | T _s =95°C | 83 A |
| I _{FSM} | T _{vj} =25°C; 10 ms T _{vj} =150°C; 10 ms | 700 A 560 A |
| I ² t | T _{vj} =25°C; 8.3.....10 ms T _{vj} =150°C; 8.3.....10 ms | 2450 A ² s 1570 A ² s |
| V _F | T _{vj} =25°C (I _F =80 Amp.) | 1.45 V |
| V ₀ | T _{vj} =150°C | 0.80 V |
| R ₀ | T _{vj} =150°C | 7.5mohm |
| I _{RD} | T _{vj} =25°C; V _{DD} =V _{DRM} ; V _{RD} =V _{RRM} T _{vj} =150°C; V _{RD} =V _{RRM} | 0.2 mA 4 mA |
| R _{th(j-s)} | per diode total | 1.4 K/W 0.233 K/W |
| T _{vj} | | -40 to +150°C |
| T _{stg} | | -40 to +125°C |
| Mounting torque | to heatsink | 2 ± 15% Nm |
| Weight | Approx. | 30 gms |
| V _(isol) | Ac,50Hz; r.m.s.; 1s /1min. | 3600 (3000) volts |

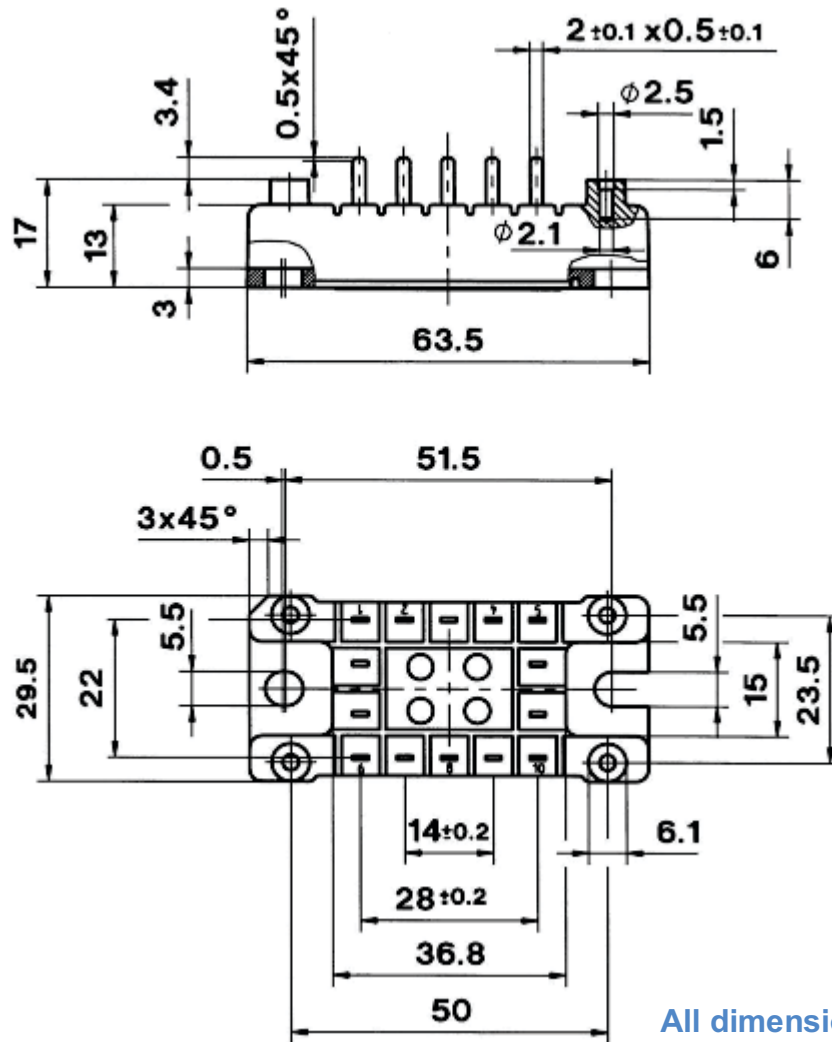
CURVES



CIRCUIT DIAGRAM



PACKAGE OUTLINE



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