

查询FD5000AV-100DA供应商

MITSUBISHI RECTIFIER DIODE
捷多邦, 专业PCB打样工厂, 24小时加急出货

FD5000AV-100DA

HIGH-POWER, GENERAL USE
PRESS PACK TYPE

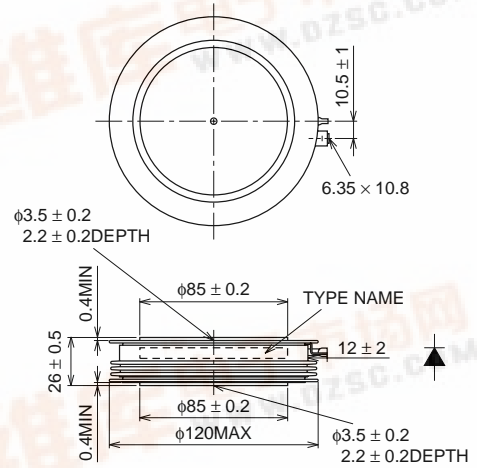
FD5000AV-100DA



- VRRM Repetitive peak reverse voltage 5000V
- IF(AV) Average forward current 5000A

OUTLINE DRAWING

Dimensions in mm



APPLICATION

- High-power inverters
- Fly-hweel diode for GCT Thyristor
- Power supplies as high frequency rectifiers

MAXIMUM RATINGS

| Symbol | Parameter | Conditions | Voltage class | Unit |
|--------|-------------------------------------|------------|---------------|------|
| VRRM | Repetitive peak reverse voltage | — | 5000 | V |
| VRSM | Non-repetitive peak reverse voltage | — | 5000 | V |
| VR(DC) | DC reverse voltage | — | 2000 | V |

| Symbol | Parameter | Conditions | Ratings | Unit |
|------------------|-----------------------------------|--|-------------------|----------------------|
| IF(RMS) | RMS forward current | Applied for all condition angles | 7850 | A |
| IF(AV) | Average forward current | f = 60Hz, sinewave $\theta = 180^\circ$, $T_f = 70^\circ\text{C}$ | 5000 | A |
| IFSM | Surge forward current | One half cycle at 60Hz, $T_j = 150^\circ\text{C}$ start | 70 | kA |
| I^2t | Current-squared, time integration | | 2.0×10^7 | A^2s |
| T_j | Operation junction temperature | | -40 ~ 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -40 ~ 150 | $^\circ\text{C}$ |
| — | Mounting force required | (Recommended value 47kN) | 39 ~ 55 | kN |
| — | Weight | Typical value 1450g | — | g |

ELECTRICAL CHARACTERISTICS

| Symbol | Parameter | Test conditions | Limits | | | Unit |
|-------------------|---------------------------------|---|--------|------|--------|------|
| | | | Min. | Typ. | Max. | |
| VFM | Forward voltage | $I_{FM} = 7000\text{A}$, $T_j = 150^\circ\text{C}$ | — | — | 1.6 | V |
| IRRM | Repetitive peak reverse current | $V_{RM} = 5000\text{V}$, $T_j = 150^\circ\text{C}$ | — | — | 200 | mA |
| $R_{\theta(j-f)}$ | Thermal resistance | Junction to Fin | — | — | 0.0071 | K/W |



PRELIMINARY
 Notice: This is not a final specification.
 Some parametric limits are subject to change.

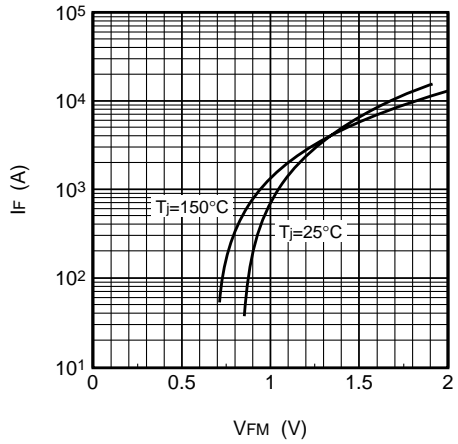
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PERFORMANCE CURVES

MAXIMUM ON STATE CHARACTERISTIC



MAXIMUM THERMAL IMPEDANCE CHARACTERISTIC (JUNCTION TO FIN)

