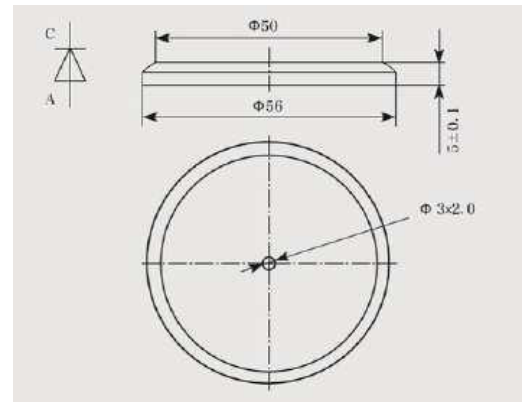


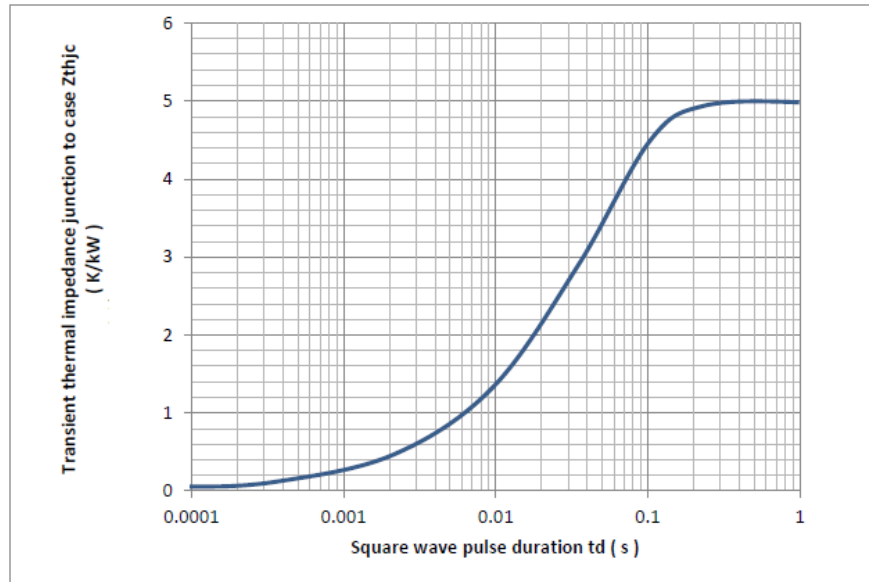
SCD10500

Housingless Diode



Features

- Optimized for high current rectifiers
- Very low threshold voltage and slope resistance
- Very low thermal resistance
- Direct paralleling
- Direct apply 2KHz



BLOCKING

| Symbol | Characteristic | Conditions | T_j (°C) | Value | Unit |
|-----------|---------------------------------|-------------------------------------|------------|---------|------|
| V_{RRM} | Repetitive peak reverse voltage | Half sine wave, $T_p=10ms$ $f=50Hz$ | | 200-400 | V |
| I_{RRM} | Repetitive peak reverse current | $V = V_{RRM}$ | 175 | 50 | mA |

CONDUCTING

| | | | | | |
|--------------|---------------------------------|--|-----|-----------|------------------|
| $I_{F(AVM)}$ | Mean forward current | Half sine wave, $T_c=85^\circ C$ | | 10500 | A |
| I_{FRMS} | Max RMS on-state current | Half sine wave, $T_c=85^\circ C$ | | 16500 | A |
| I_{FSM} | Max peak non-repetitive current | $t_p=10ms, T_j=175^\circ C, V_r \sim 0V$ | | 70000 | A |
| $I^2 t$ | Max surge current integral | | | 24500K | A ² s |
| V_F | Maximum on-state voltage | $I_F = 8000A$ | 25 | 0.92±1.05 | V |
| V_{FO} | Threshold voltage | $I_F = 7-21KA$ | 175 | 0.81 | V |
| r_F | Forward slope resistance | $I_F = 7-21KA$ | 175 | 0.026 | mΩ |

MOUNTING

| | | | | | |
|---------------|-----------------------------|------------------|--|--------------|-----|
| $R_{th(j-c)}$ | Thermal impedance, sin 180° | Junction to case | | ≤5.0K | K/W |
| $R_{th(c-h)}$ | Thermal impedance | Case to heatsink | | ≤2.5K | K/W |
| T_j | Max. junction temperature | | | -40 175 | °C |
| T_{stg} | Storage temperature | | | -40 175 | °C |
| M | Mounting torque | | | 30±50 | KN |
| W | Weight (Approx.) | | | 110 | g |