

Thyristors

DCR1476



Technical Data

Typical applications : D.C. Motor control, Controlled rectifiers, High power drives.

| Type No. | V_{RRM} (Volts) | V_{RSM} (Volts) |
|------------|----------------------|----------------------|
| DCR1476/30 | 3000 | 3100 |
| DCR1476/32 | 3200 | 3300 |
| DCR1476/34 | 3400 | 3500 |
| DCR1476/36 | 3600 | 3700 |
| DCR1476/38 | 3800 | 3900 |
| DCR1476/40 | 4000 | 4100 |
| DCR1476/42 | 4200 | 4300 |

Features

- Double side cooling.
- Voltage grade upto 4200V
- Weight 1600 gm (Approx.)

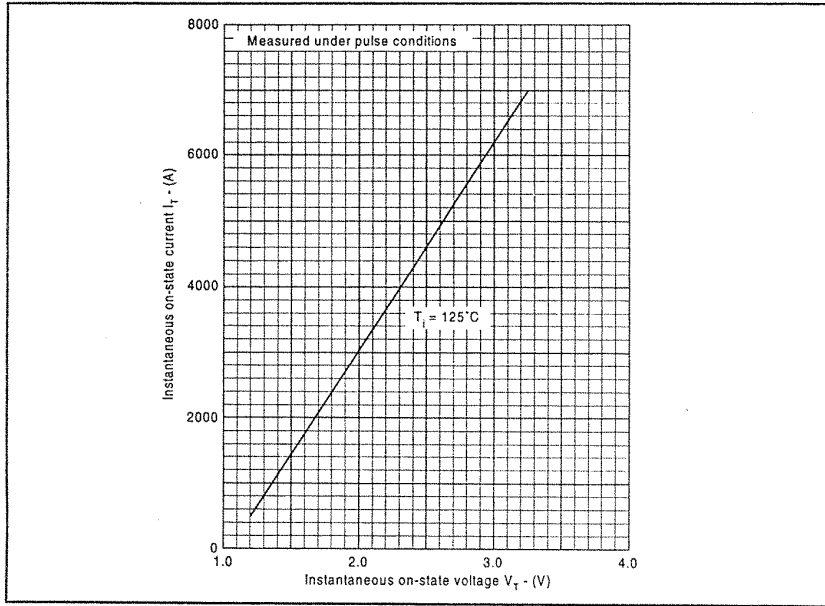
| Symbol | Conditions | Values |
|-------------------|--|--------------------------|
| $I_{T(AV)}$ | Half wave resistive load; $T_C = 60^\circ C$ | 2223 A |
| I_{TSM} | $T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 50\% V_{RRM}$ | 29.0 KA |
| | $T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$ | 36.25 KA |
| I^2t | $T_{vj} = 125^\circ C$, 10 ms half sine, $V_R = 50\% V_{RRM}$ | 4210000 A ² s |
| | $T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$ | 6570000 A ² s |
| I_{GT} | $T_{vj} = 25^\circ C$; $V_{DRM} = 5V$ | 400 mA |
| V_{GT} | $T_{vj} = 25^\circ C$; $V_{DRM} = 5V$ | 4.0 V |
| dv/dt | $T_{vj} = 125^\circ C$; Voltage = 67 % V_{DRM} | *500V/ μ s |
| $[di/dt]_{CR}$ | Repetitive 50 Hz | 150 A/ μ s |
| V_T | $T_{vj} = 25^\circ C$; $I_T = 2900 A$ | 1.875 V max |
| V_O | $T_{vj} = 125^\circ C$ | 1.03 V |
| R_O | $T_{vj} = 125^\circ C$ | 0.32 m |
| I_{RRM}/I_{DRM} | $T_{vj} = 130^\circ C$ | 250 mA |
| I_H I_L | | 500 mA |
| | | 1000 mA |
| $R_{th(j-c)}$ | dc | 0.0095 $^\circ C/W$ |
| $R_{th(c-h)}$ | | 0.002 $^\circ C/W$ |
| T_{vj} | | +125 $^\circ C$ |
| T_{stg} | | -40....+125 $^\circ C$ |
| Mounting Force | | 38-47 KN |
| Case outline | | Y |

* Higher dv/dt selection available.

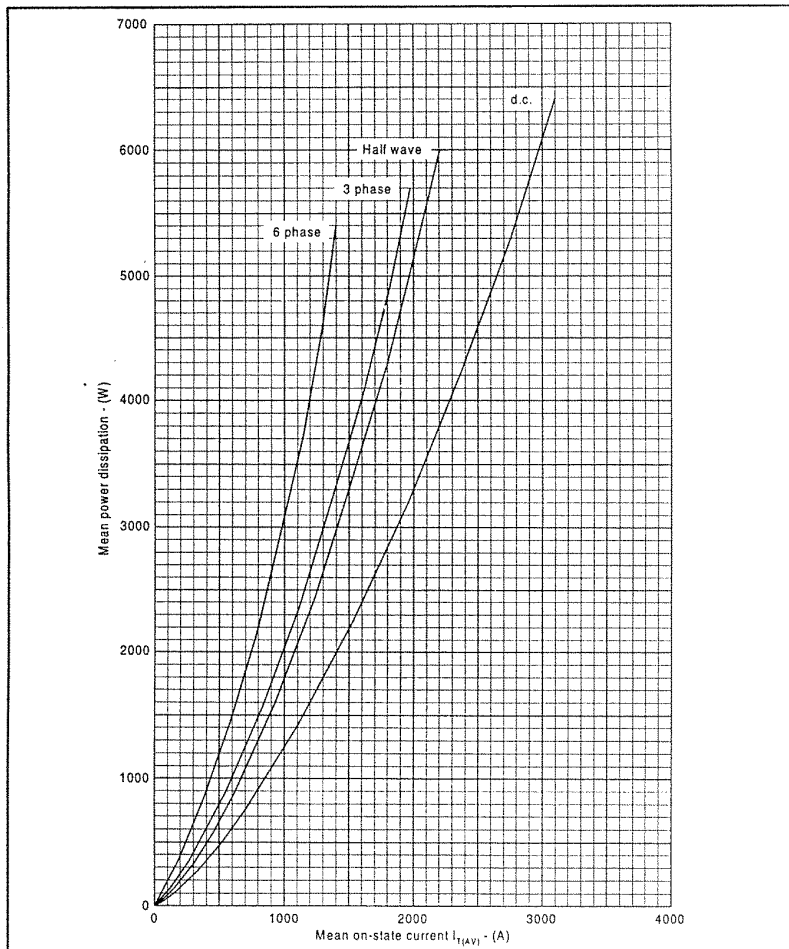


DCR1476SY

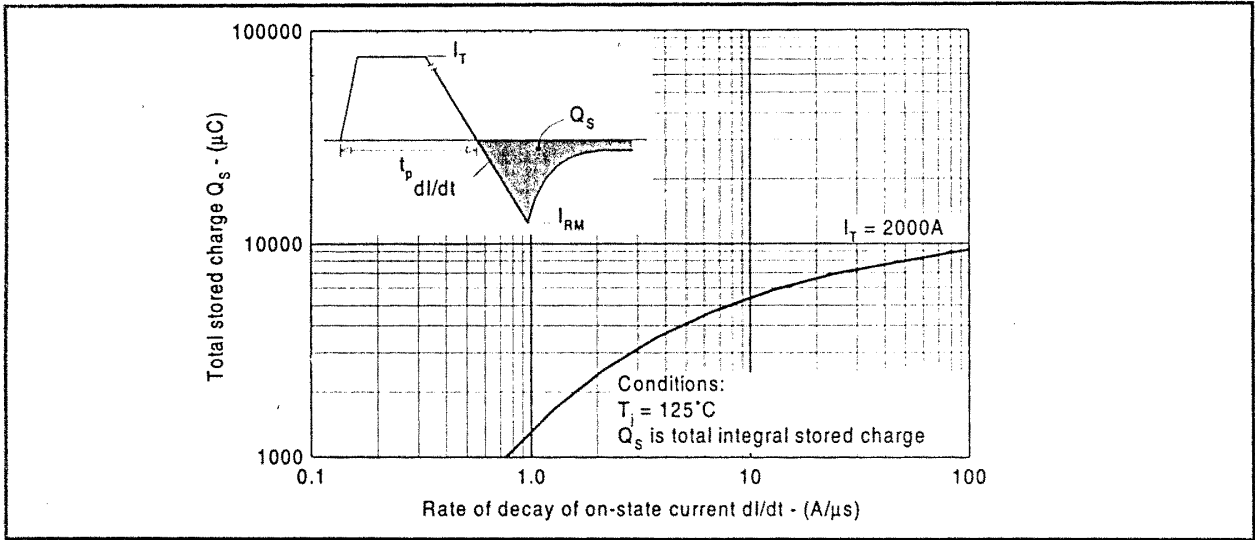
CURVES



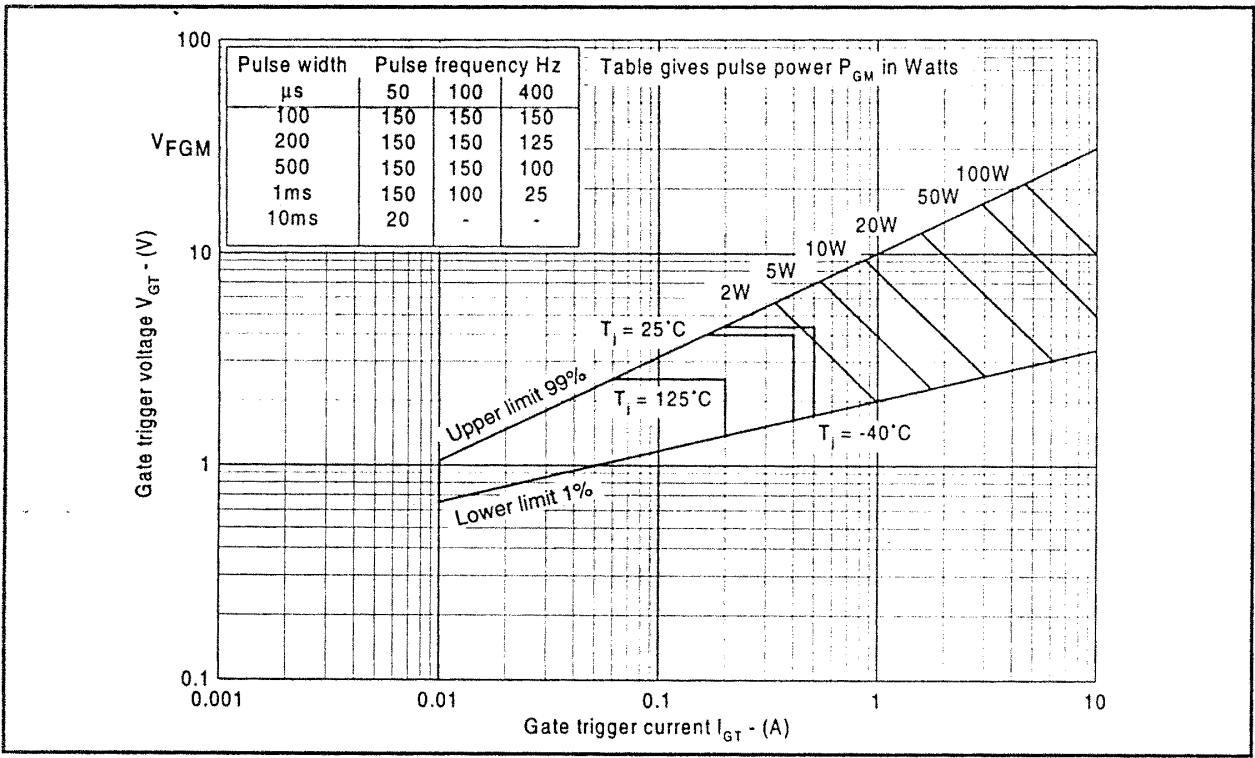
Maximum (limit) on-state characteristics



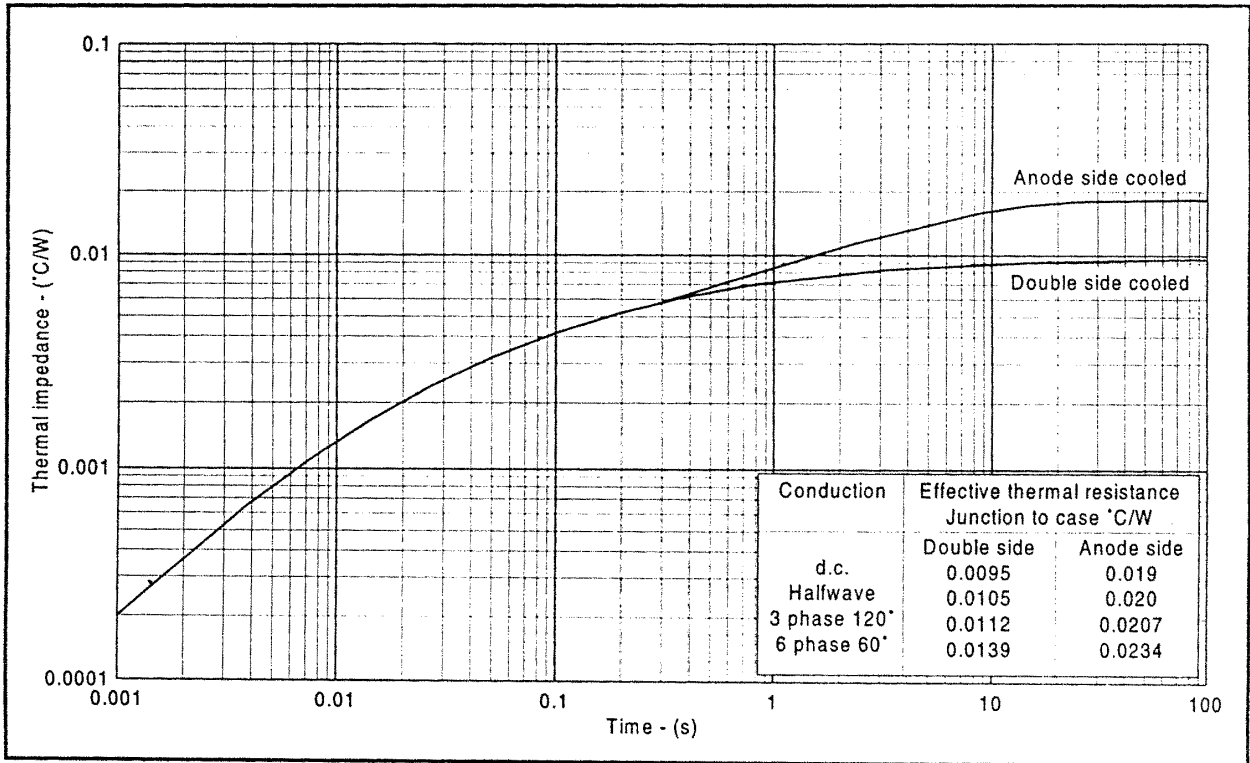
Dissipation curves



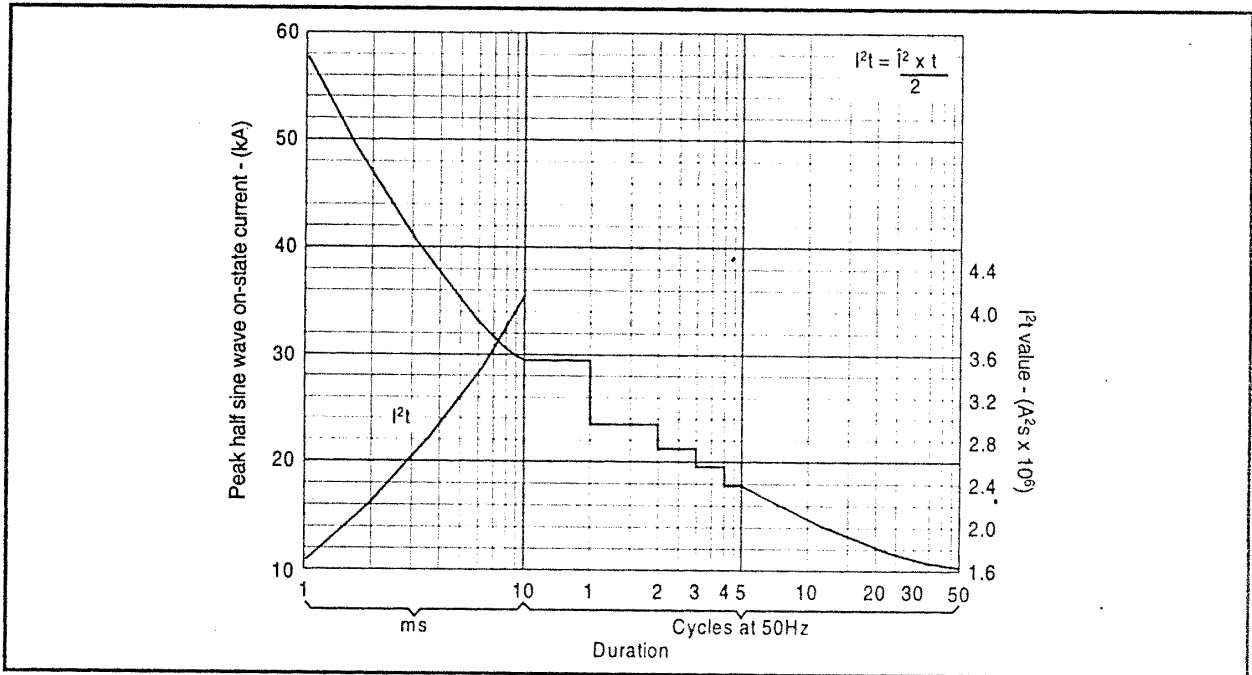
Stored charge



Gate characteristics



Maximum (limit) transient thermal impedance - Junction to case



Surge (non-repetitive) on-state current vs time (with 50% V_{RRM} at T_{case} 125°C)

PACKAGE DETAILS

DO NOT SCALE.

