Thyristors
DCR1006

Technical Data

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

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR1006/16	1600	1700
DCR1006/18	1800	1900
DCR1006/20	2000	2100
DCR1006/22	2200	2300
DCR1006/26	2600	2700
DCR1006/28	2800	2900

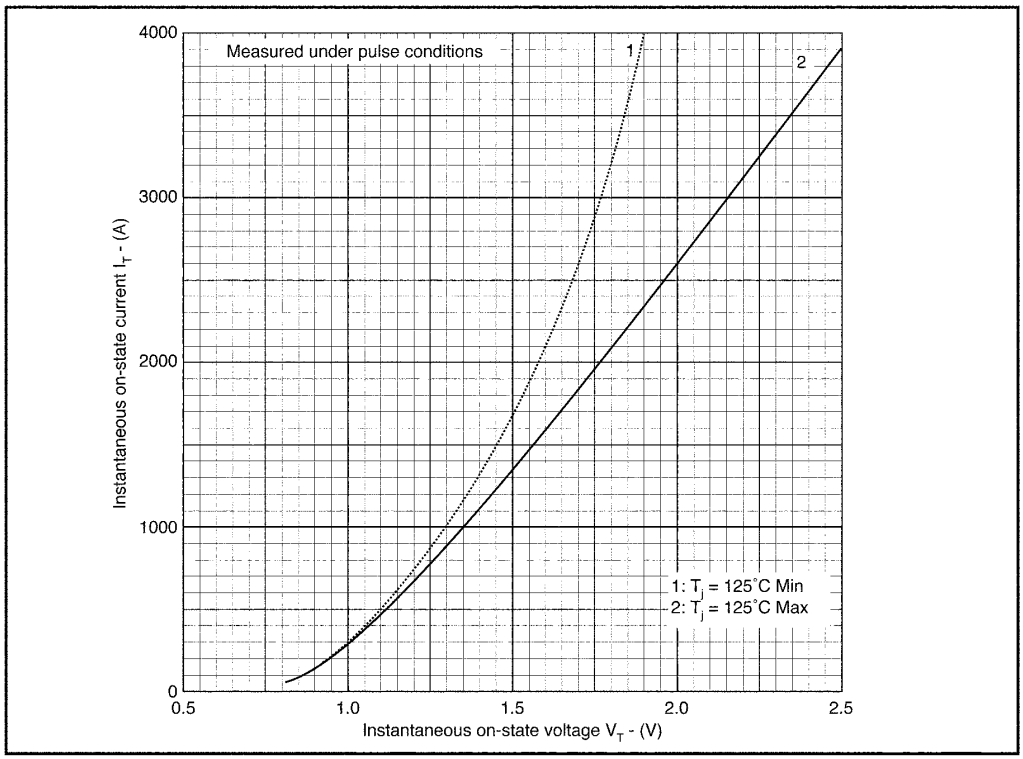
Features

- Double side cooling.
- Voltage grade upto 2800V.
- Weight 500gm (Approx.)

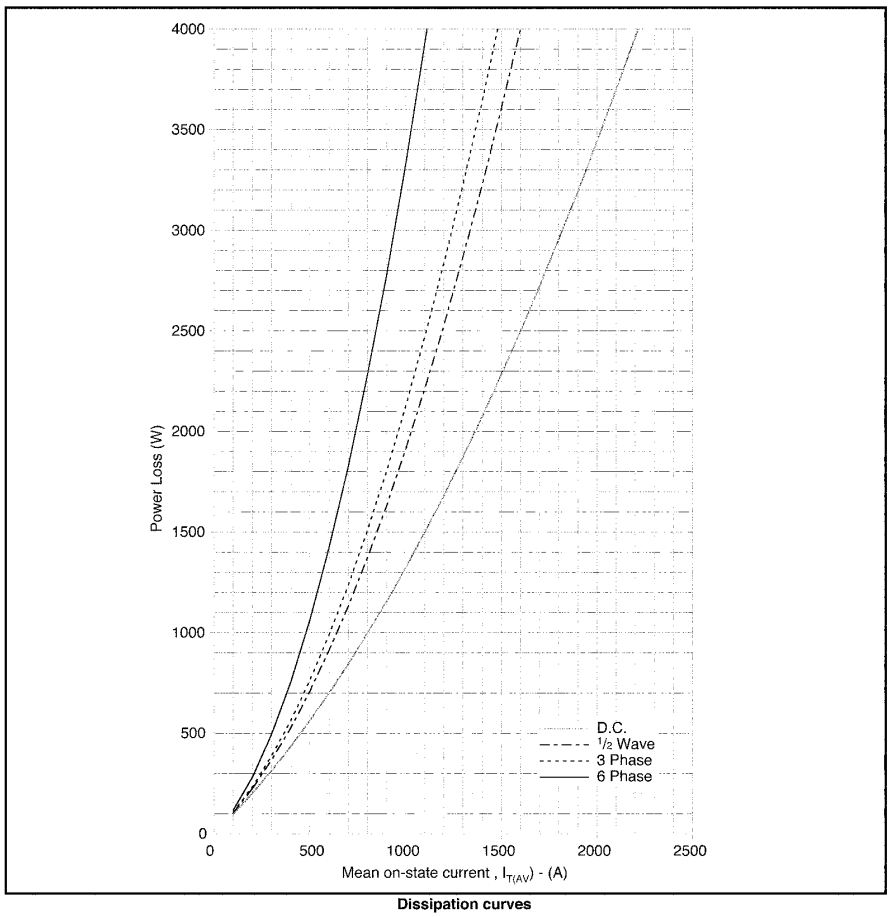
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load T_C = 60 ˚C	1255 A
I_{TSM}	T_{VJ} = 125 ˚C; 10 ms half sine, V_R=50% V_{RRM}	16.4 K.A.
	T_{VJ} = 125 ˚C; 10 ms half sine, V_R=0	20.5 K.A.
I^2T	T_{VJ} = 125 ˚C; 10 ms half sine, V_R=50% V_{RRM}	1350000 A^2s
	T_{VJ} = 125 ˚C; 10 ms half sine, V_R=0	2100000 A^2s
I_{GT}	T_{VJ} = 25 ˚C; V_{DRM} = 5V	200 mA
V_{GT}	T_{VJ} = 25 ˚C; V_{DRM} = 5V	3.5 V
dv/dt	T_{VJ} = 125 ˚C; Voltage = 67% V_{DRM}	*300 V/µS
$[di/dt]_{cr}$	Repetitive 50 Hz	250 A/µS
V_T	T_{VJ} = 25 ˚C; I_T = 2900 A	1.875 V max
V_o	T_{VJ} = 125 ˚C	0.92 V
R_o	T_{VJ} = 125 ˚C	0.40 mΩ
I_{RRM}/I_{DRM}	T_{VJ} = 130 ˚C	100 mA
I_H	T_{VJ} = 25 ˚C; $R_{6\text{-}K}$= ∞	500 mA
I_L	T_{VJ} = 25 ˚C; V_D= 5V	1000 mA
$R_{th(i\text{-}c)}$	dc	0.022 ˚C/W
$R_{th(i\text{-}h)}$		0.004 ˚C/W
Tvj		125 ˚C
Tstg		-40 to + 125 ˚C
Mounting Force		20-22 KN
Case outline		F

* Higher dv/dt selection available.

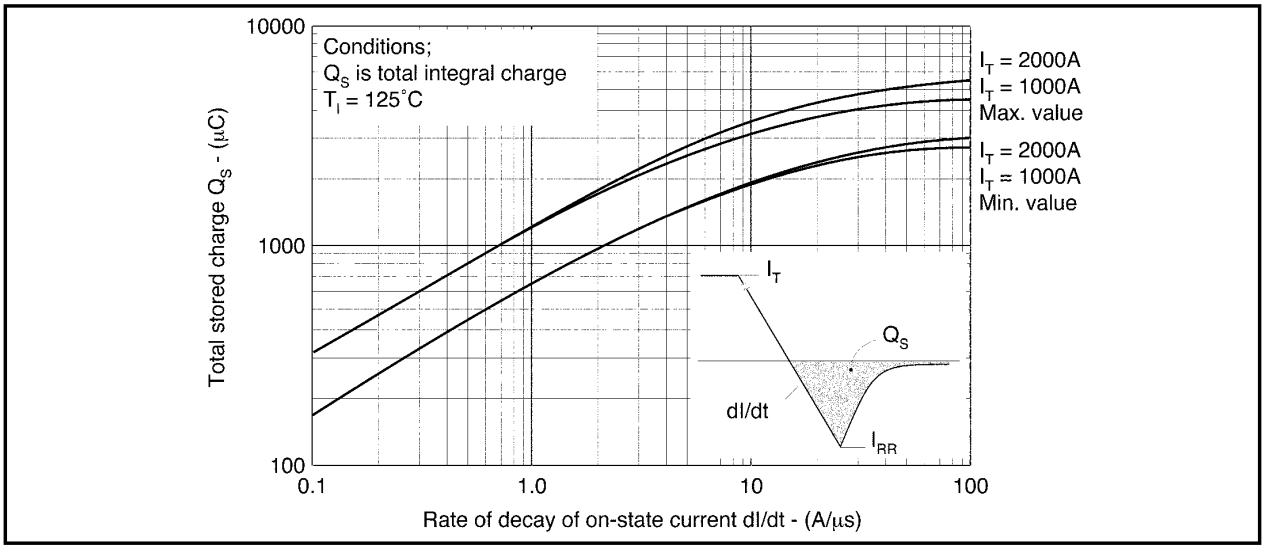
CURVES



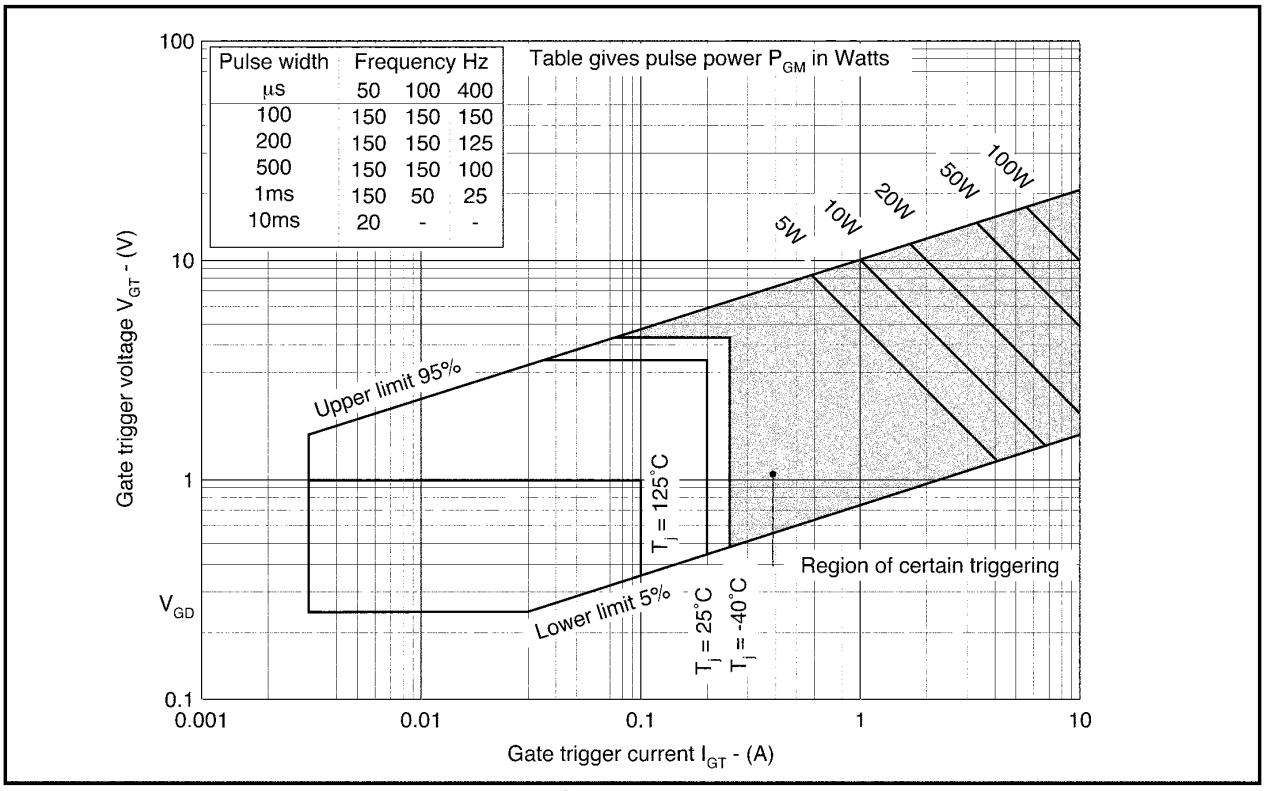
Maximum (limit) on-state characteristics



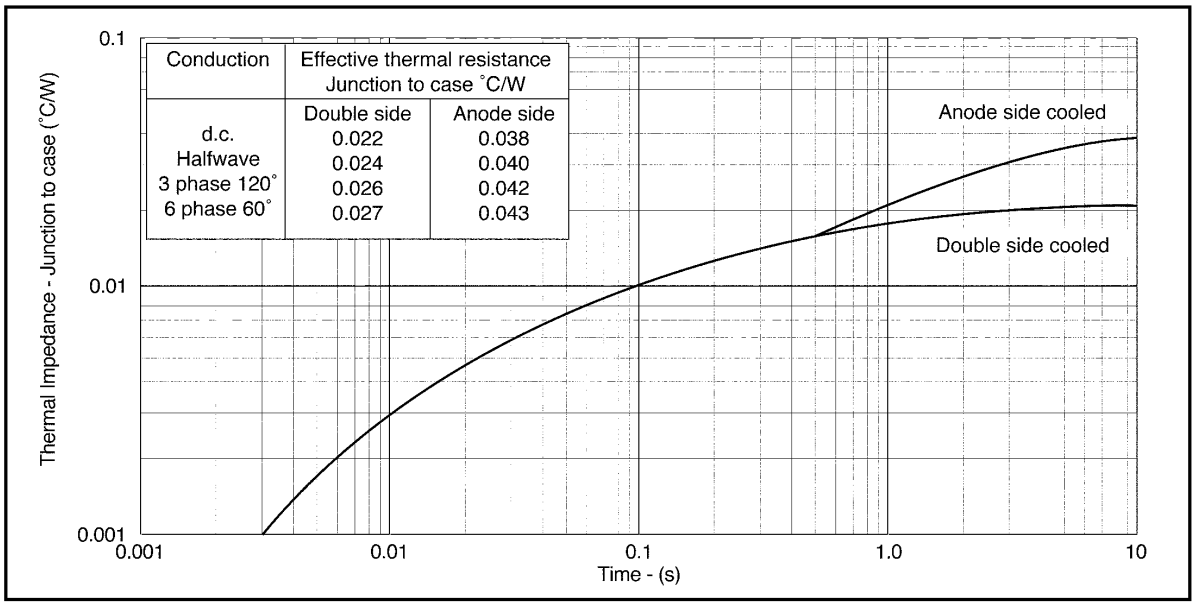
Dissipation curves



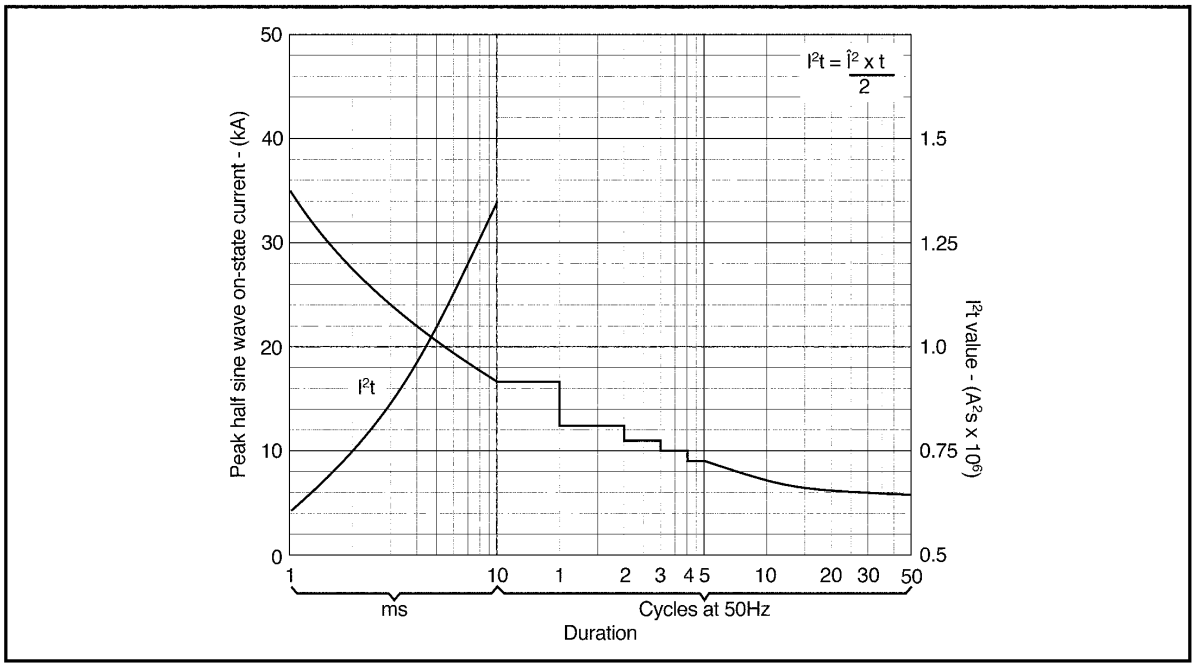
Stored charge



Gate characteristics



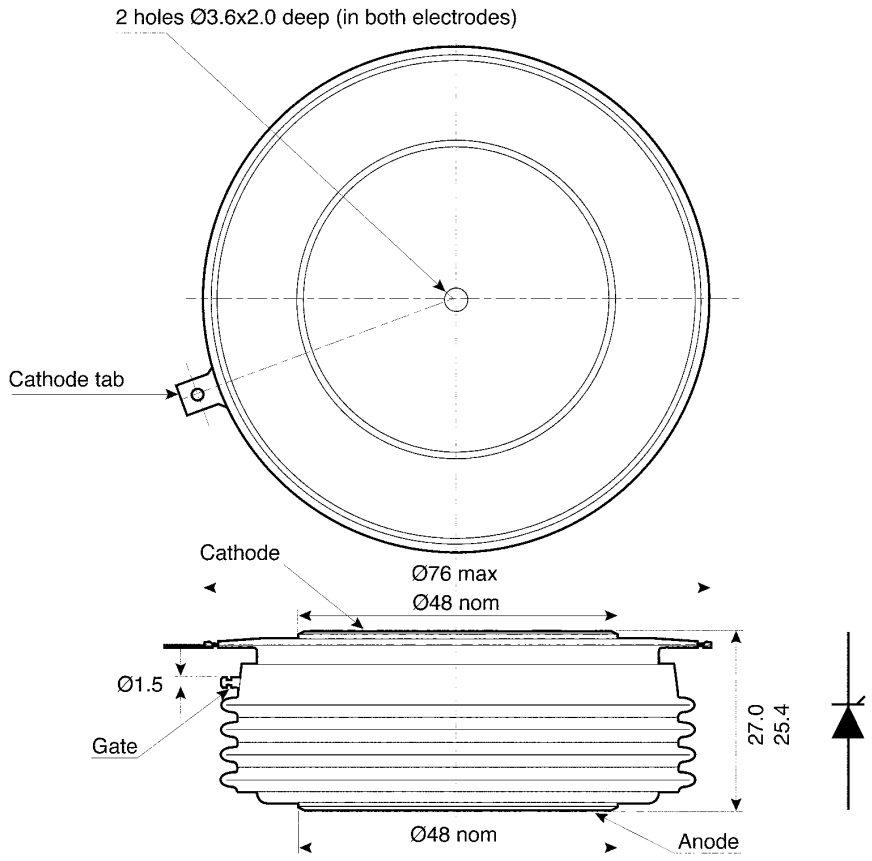
Transient thermal impedance - junction to case - (°C/W)



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

PACKAGE DETAILS

DO NOT SCALE



Nominal weight: 500g
Clamping force: 20-22kN

All dimensions in mm

Package outline : F