

Thyristors

DCR604



Technical Data

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

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR604/04	400	500
DCR604/08	800	900
DCR604/12	1200	1300
DCR604/14	1400	1500
DCR604/16	1600	1800
DCR604/18	1800	1900
DCR604/20	2000	2100

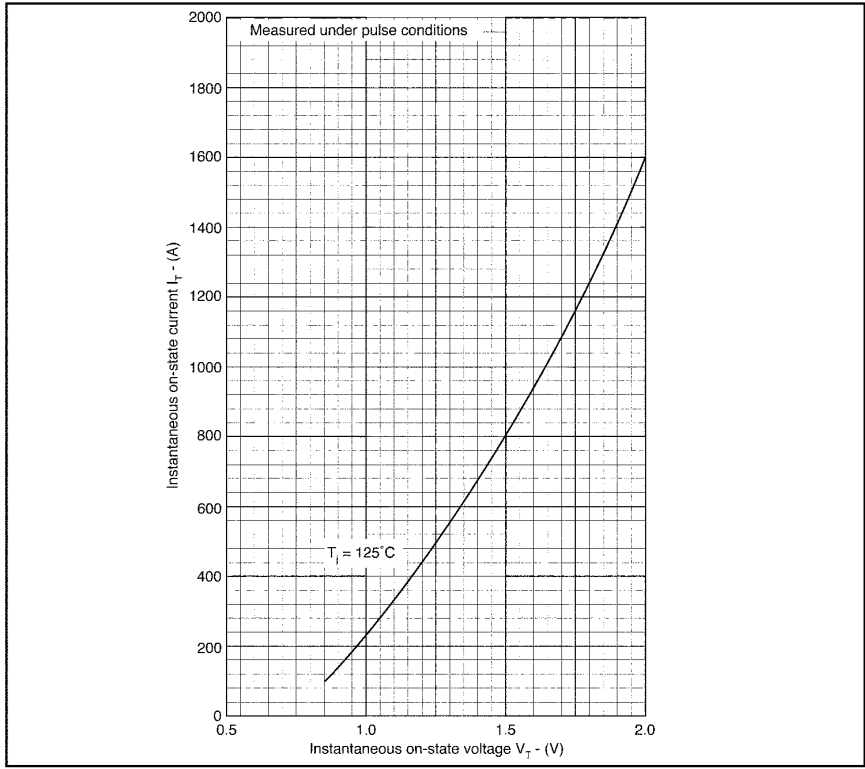
Features

- Double side cooling.
- Voltage grade upto 2000V
- Weight 82gm (Approx.)

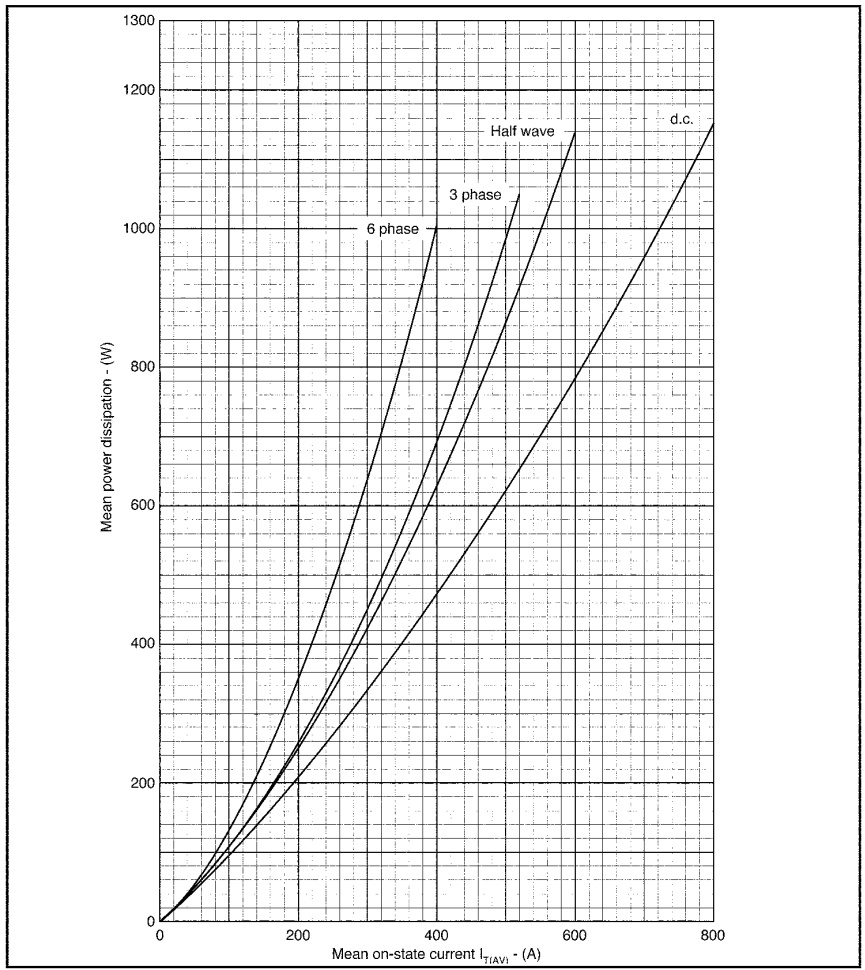
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; $T_C = 60^\circ C$	706 A
I_{TSM}	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 50\% V_{RRM}$	6.5 KA
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	8.1 KA
I^2t	$T_{vj} = 125^\circ C$, 10 ms half sine, $V_R = 50\% V_{RRM}$	210000 A ² s
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	330000 A ² s
I_{GT}	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	150 mA
V_{GT}	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	3.0V
dv/dt	$T_{vj} = 125^\circ C$; Voltage = 67 % V_{DRM}	*200V/ μ s
$[di/dt]_{CR}$	Repetitive 50 Hz	350 A/ μ s
V_T	$T_{vj} = 25^\circ C$; $I_T = 1000 A$	1.625 V max
V_O	$T_{vj} = 125^\circ C$	0.93 V
R_O	$T_{vj} = 125^\circ C$	0.667 m
I_{RRM}/I_{DRM}	$T_{vj} = 125^\circ C$	30 mA
I_H	$T_j = 25^\circ C$; $R_{\theta-K} =$	70 mA
I_L	$T_j = 25^\circ C$; $V_D = 5V$	500 mA
$R_{th(j-c)}$	dc	0.041 $^\circ C/W$
$R_{th(c-h)}$		0.018 $^\circ C/W$
T_{vj}		+125 $^\circ C$
T_{stg}		-40....+125 $^\circ C$
Mounting Force		8.8 KN
Case outline		E

* Higher dv/dt selection available.

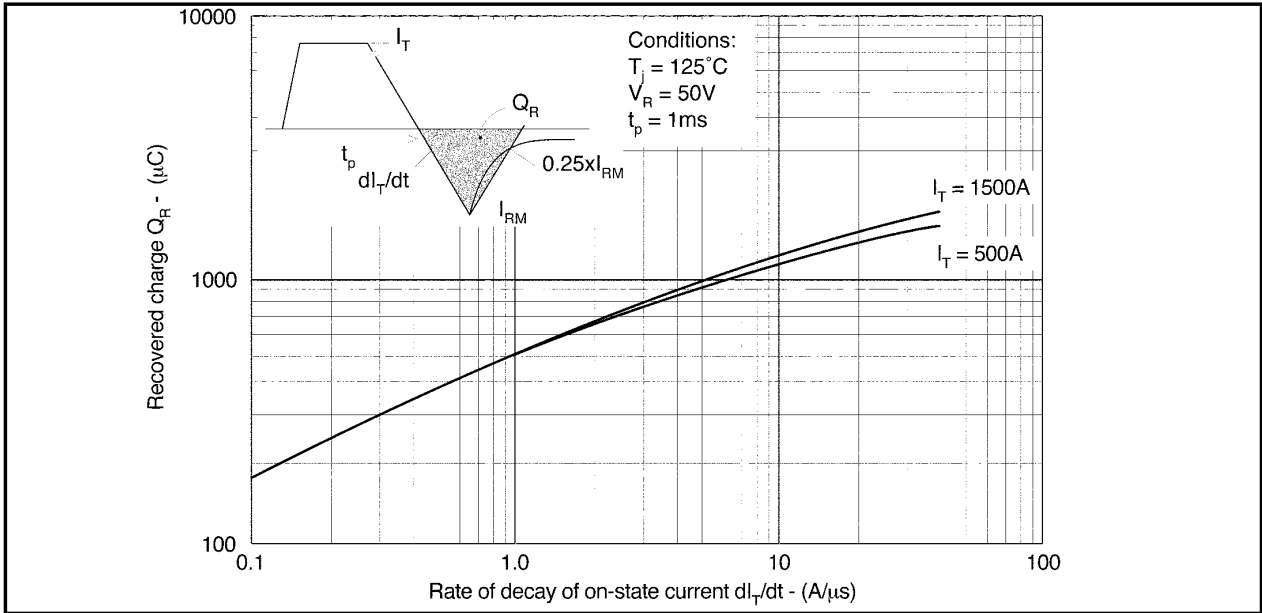




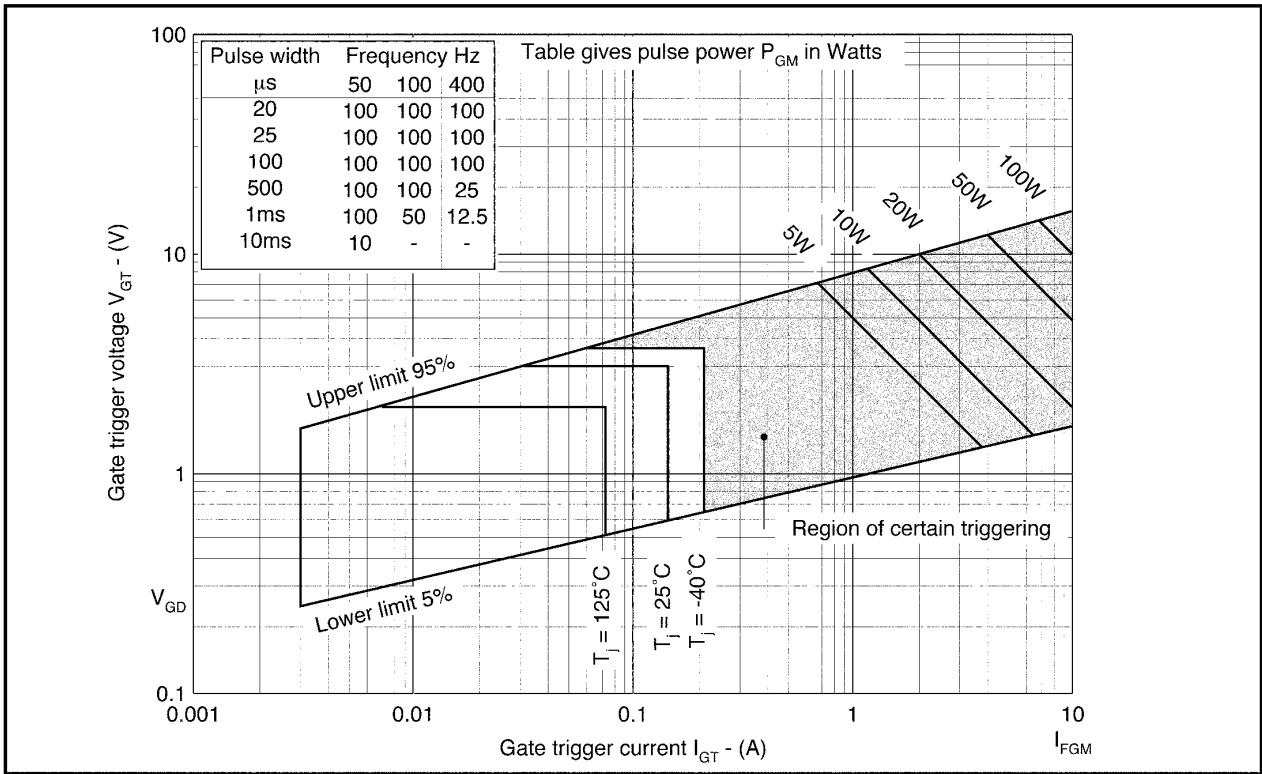
Maximum (limit) on-state characteristics



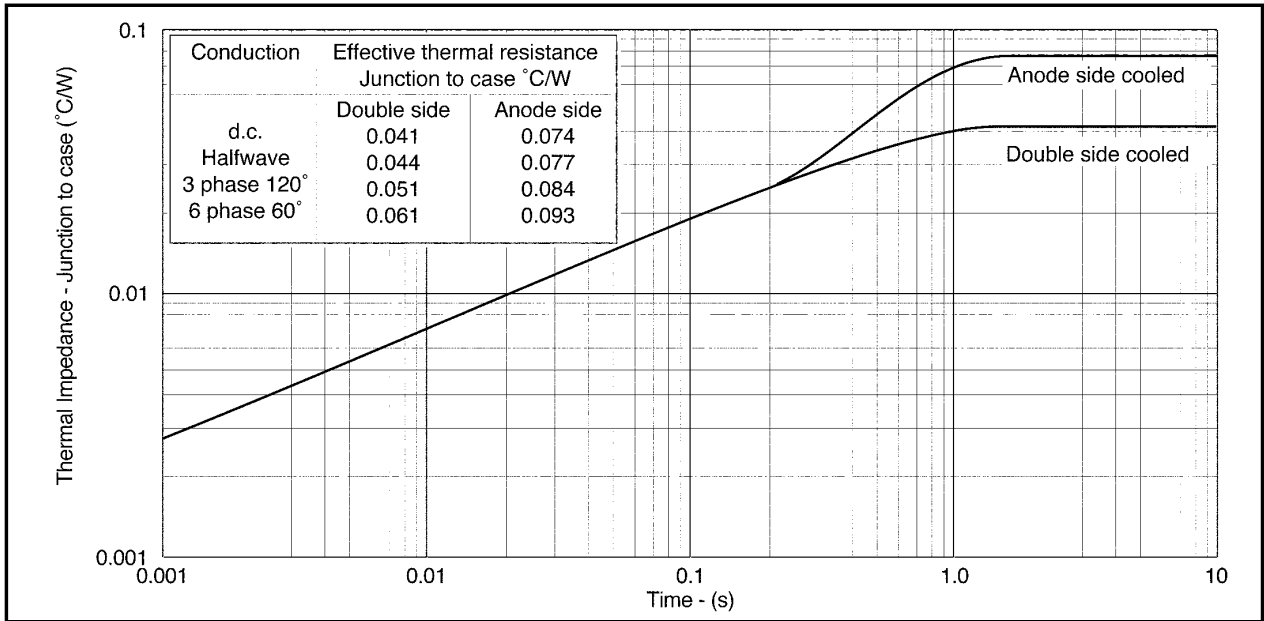
Dissipation curves



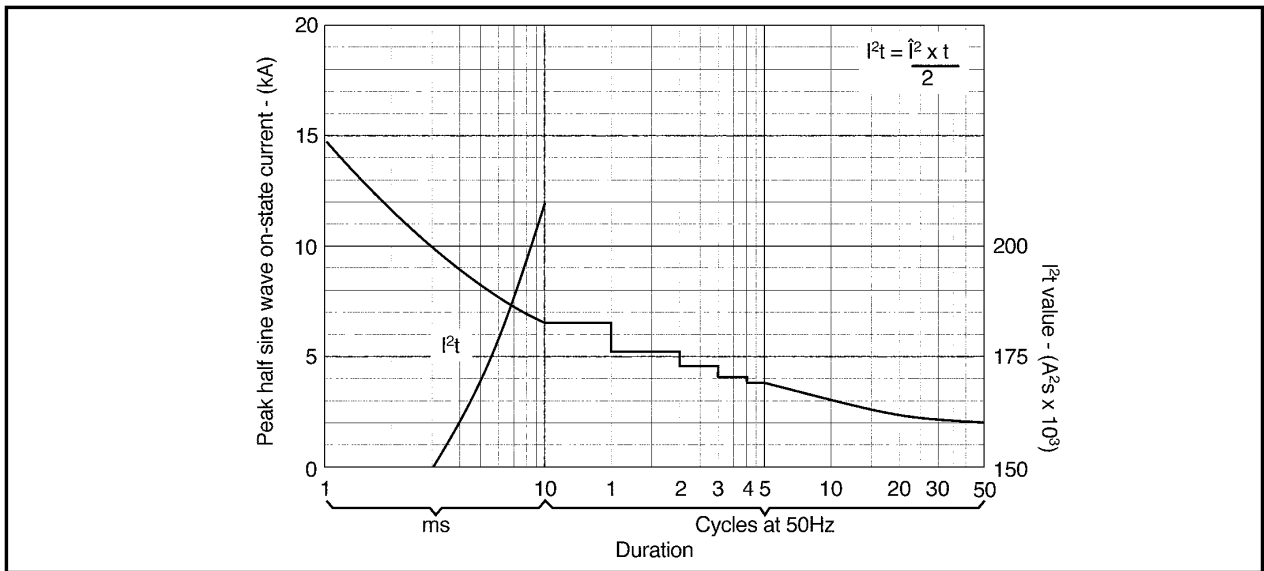
Recovered charge



Gate characteristics



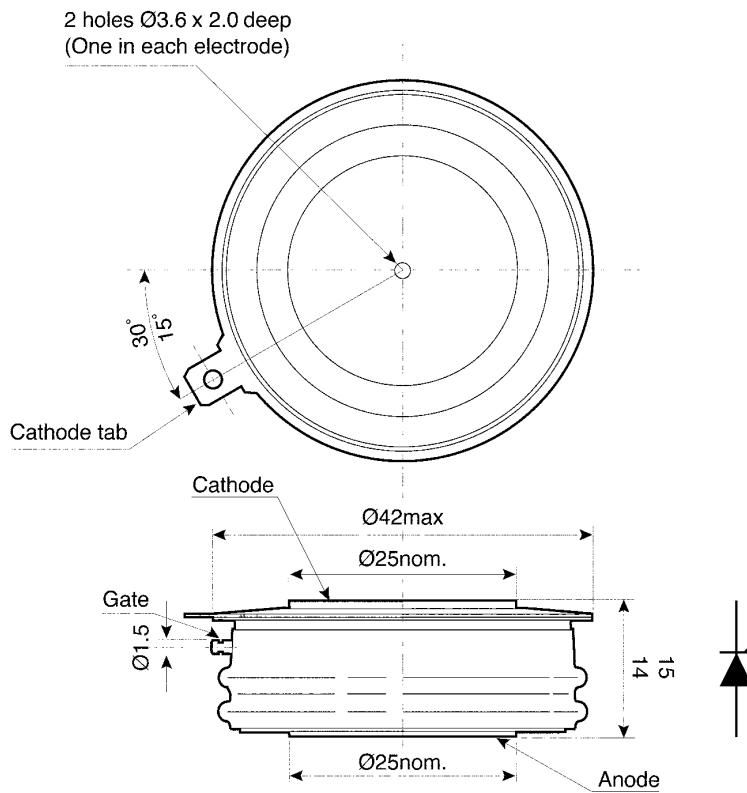
Maximum (limit) transient thermal impedance - junction to case



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

PACKAGE OUTLINE - E

DO NOT SCALE



Nominal weight: 82g
Clamping force: 8.8kN

All dimensions in mm

Package outline : E