

Thyristors

DCR504



Technical Data

Typical applications : D.C. Motor control, Controlled rectifiers, A.C. Controllers.

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR504/04	400	500
DCR504/06	600	700
DCR504/08	800	900
DCR504/10	1000	1100
DCR504/12	1200	1300
DCR504/14	1400	1500
DCR504/16	1600	1700

Features

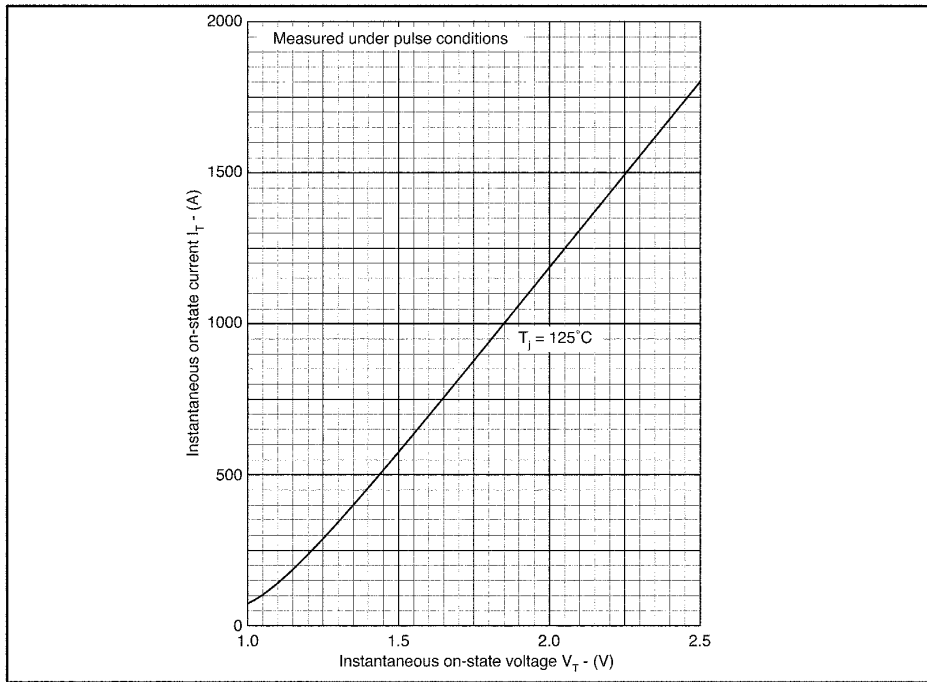
- Double side cooling.
- Voltage grade upto 1600V
- Weight 50gm (Approx.)

Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; $T_C = 60^\circ C$	456 A
I_{TSM}	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 50\% V_{RRM}$	5.5 KA
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	6.8 KA
I^2t	$T_{vj} = 125^\circ C$, 10 ms half sine, $V_R = 50\% V_{RRM}$	150000 A ² s
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	231000 A ² s
I_{GT} V_{GT} dv/dt $[di/dt]_{CR}$	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	150 mA
	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	3.0V
	$T_{vj} = 125^\circ C$; Voltage = 67 % V_{DRM}	*200V/ μ s
	Repetitive 50 Hz	350 A/ μ s
V_T V_O R_O I_{RRM}/I_{DRM}	$T_{vj} = 25^\circ C$; $I_T = 1000 A$	1.75 V max
	$T_{vj} = 125^\circ C$	1.05 V
	$T_{vj} = 125^\circ C$	0.8 m
	$T_{vj} = 130^\circ C$	30 mA
I_H I_L	$T_j = 25^\circ C$; $R_{6-K} =$	30 mA
	$T_j = 25^\circ C$; $V_D = 10V$	200 mA
$R_{th(j-c)}$ $R_{th(c-h)}$ T_{vj} T_{stg}	dc	0.063 $^\circ C/W$
		0.02 $^\circ C/W$
		+125 $^\circ C$
		-40...+125 $^\circ C$
Mounting force		4.5 KN
Case outline		T

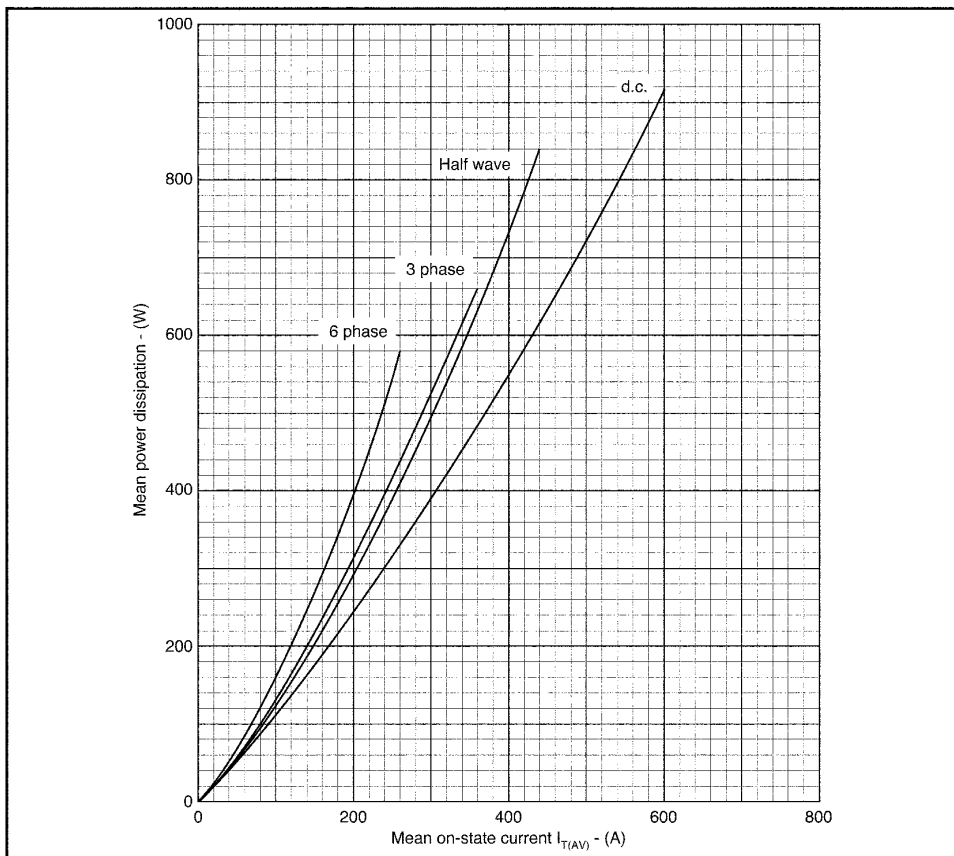
* Higher dv/dt selection available.



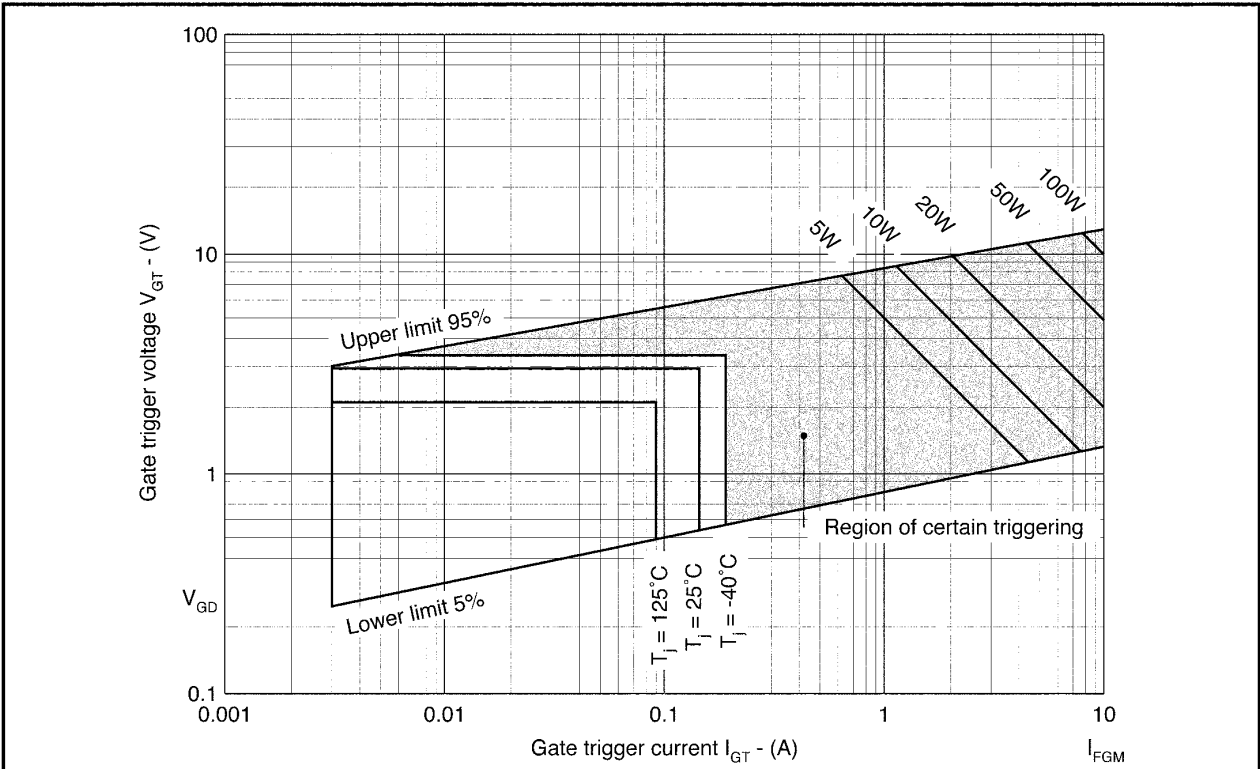
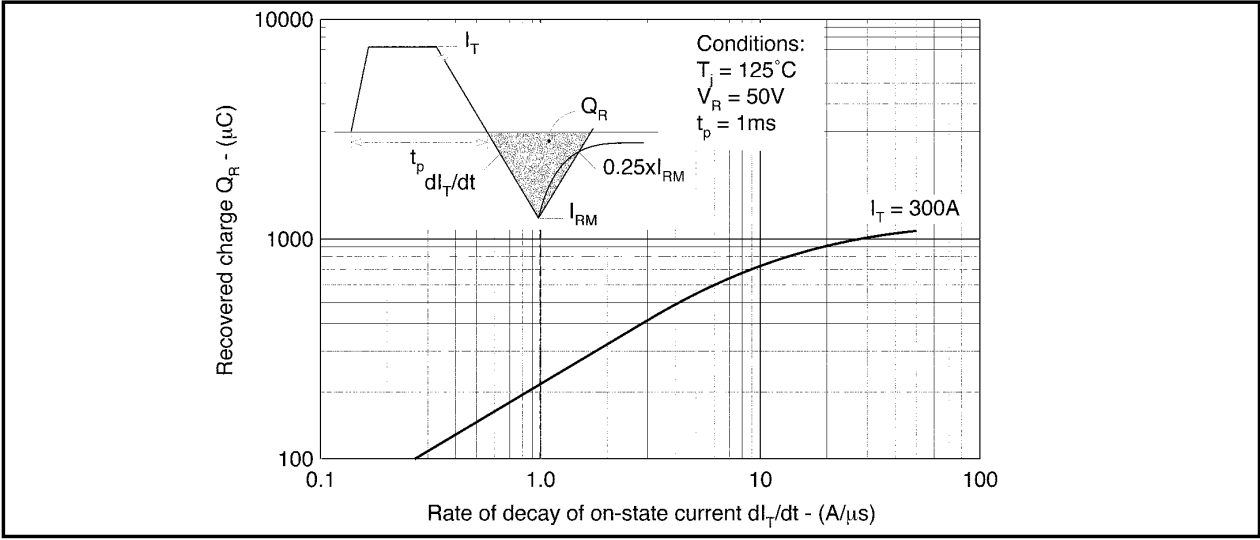
CURVES

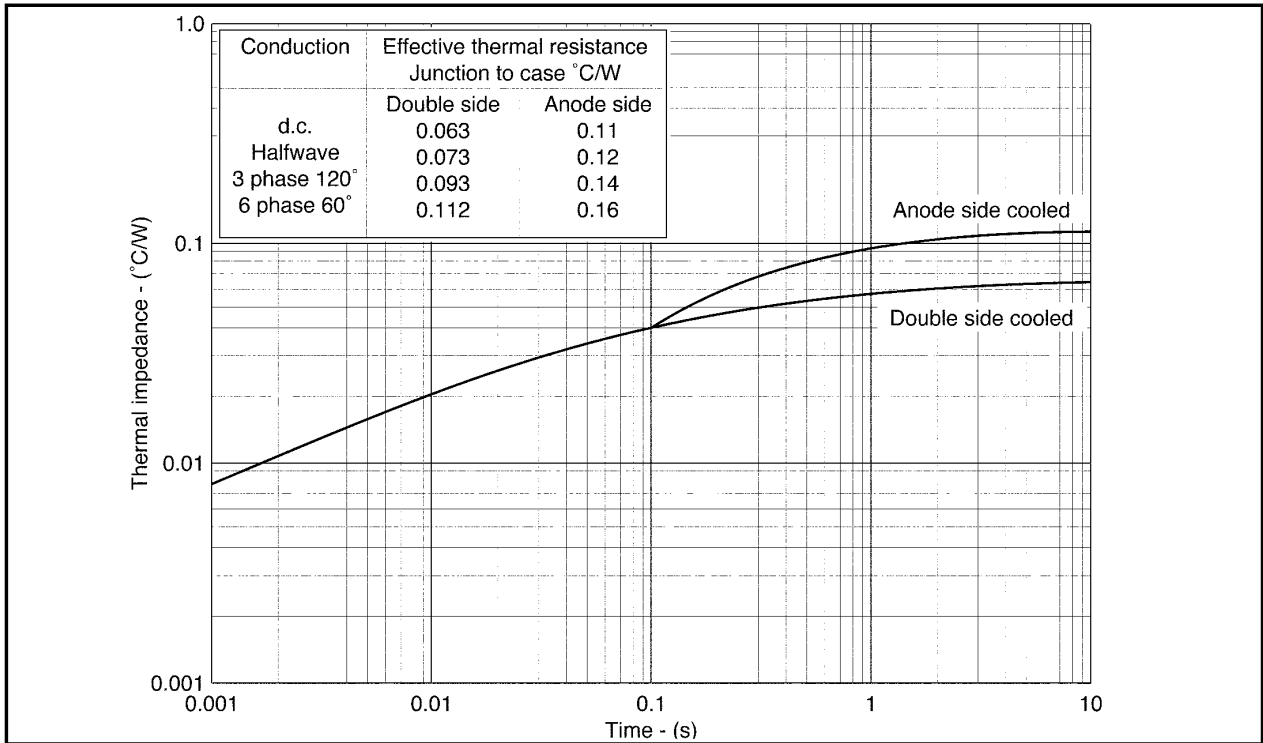


Maximum (limit) on-state characteristics

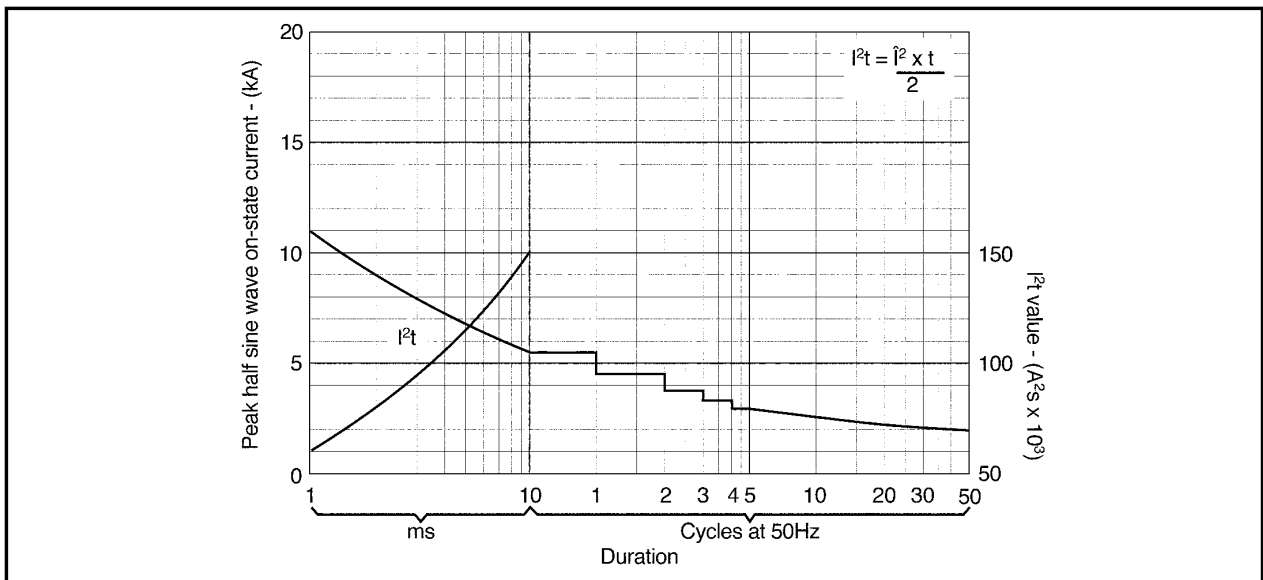


Dissipation curves





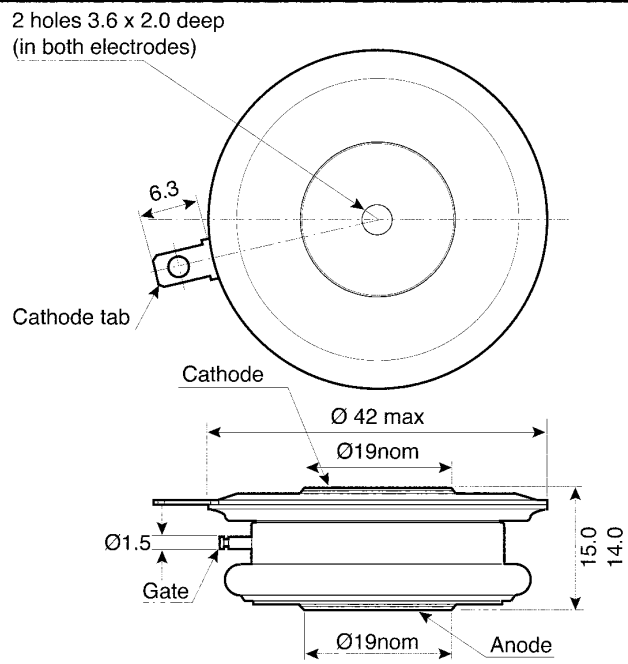
Maximum (limit) transient thermal impedance - junction to case



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

PACKAGE DETAILS

DO NOT SCALE



Nominal weight: 50g
Clamping force: 4.5kN

All dimensions in mm

Package outline : T