

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

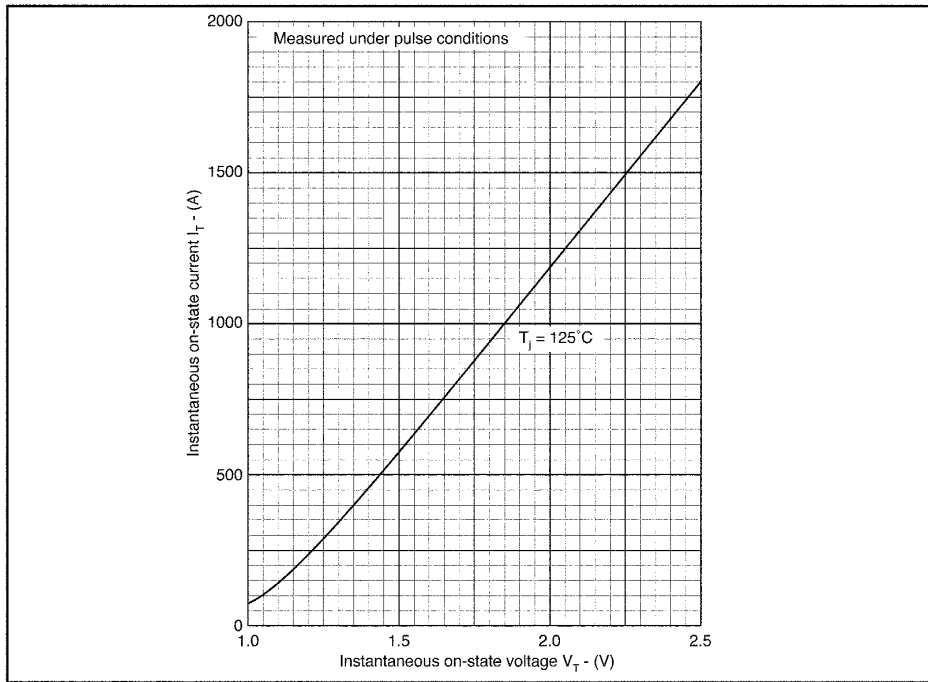
- Double side cooling.
- Voltage grade upto 1600V
- Weight 50gm (Approx.)

Symbol	Conditions	Values
I _{T(AV)}	Half wave resistive load; T _C = 60 °C	456 A
I _{TSM}	Tvj = 125 °C ; 10 ms half sine, V _R = 50% V _{RRM}	5.5 KA
	Tvj = 125 °C ; 10 ms half sine, V _R = 0	6.8 KA
I ² t	Tvj = 125 °C, 10 ms half sine, V _R = 50% V _{RRM}	150000 A ² s
	Tvj = 125 °C ; 10 ms half sine, V _R = 0	231000 A ² s
I _{GT} V _{GT}	Tvj = 25 °C; V _{DRM} = 5V	150 mA
	Tvj = 25 °C; V _{DRM} = 5V	3.0V
dv/dt	Tvj = 125 °C; Voltage = 67 % V _{DRM}	*200V/μs
[di/dt] _{CR}	Repetitive 50 Hz	350 A/μs
V _T	Tvj = 25 °C; I _T = 1000 A	1.75 V max
V _O	Tvj = 125 °C	1.05 V
R _O	Tvj = 125 °C	0.8 m
I _{RRM} /I _{DRM}	Tvj = 130 °C	30 mA
I _H I _L	Tj = 25 °C; R _{6-K} =	30 mA
	Tj = 25 °C; V _D = 10V	200 mA
R _{th(j-c)}	dc	0.063 °C/W
R _{th(c-h)}		0.02 °C/W
T _{vj}		+125 °C
T _{stg}		-40...+125 °C
Mounting force		4.5 KN
Case outline		T

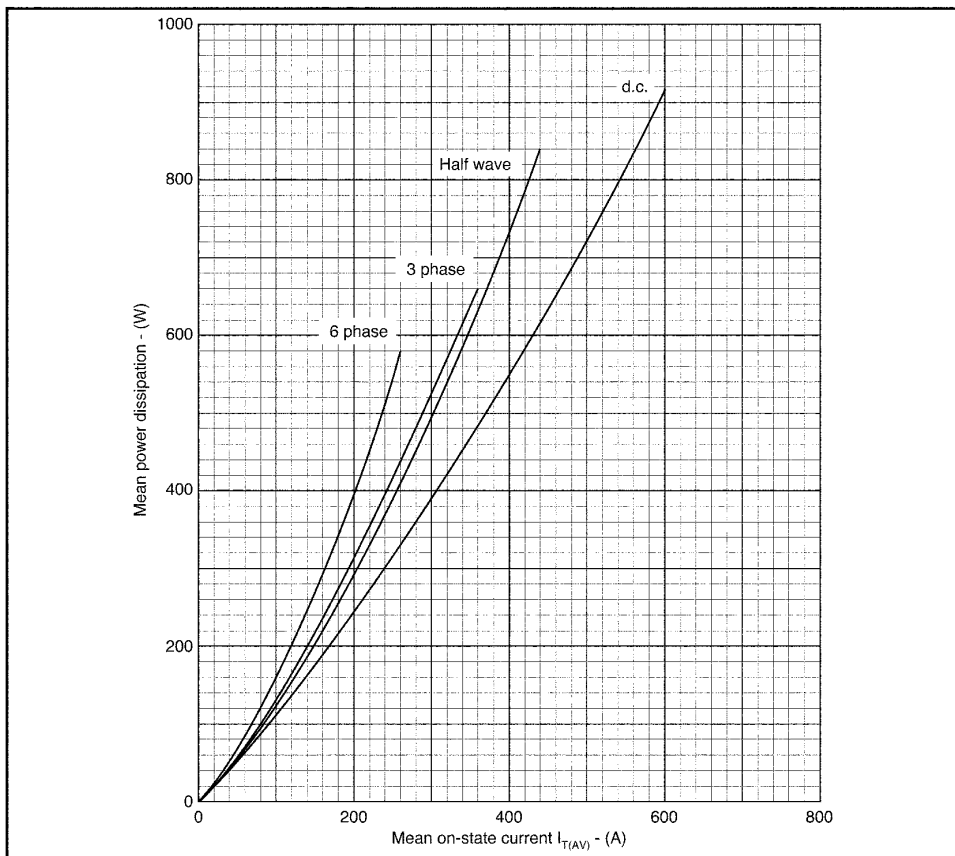
* Higher dv/dt selection available.



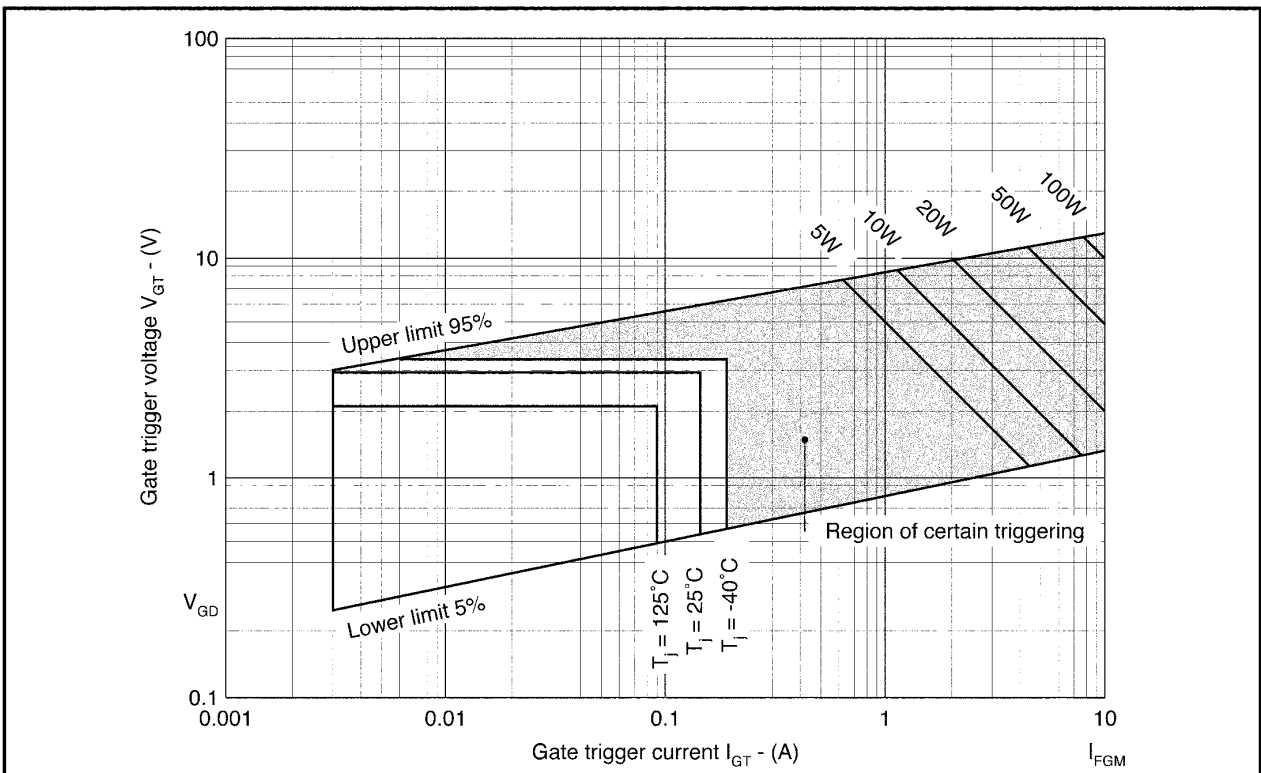
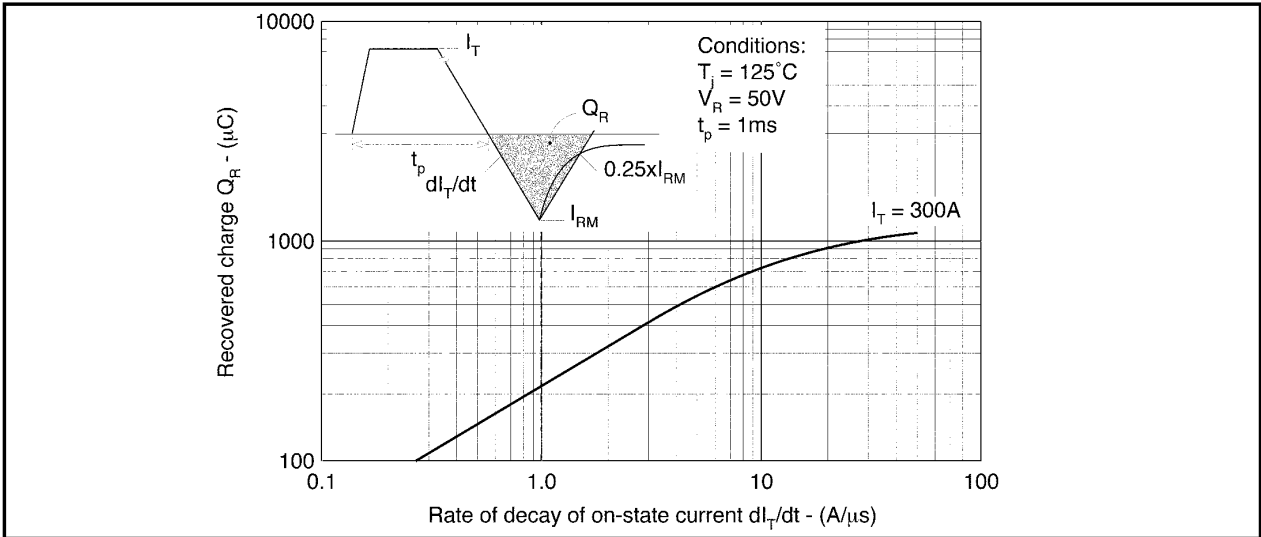
CURVES

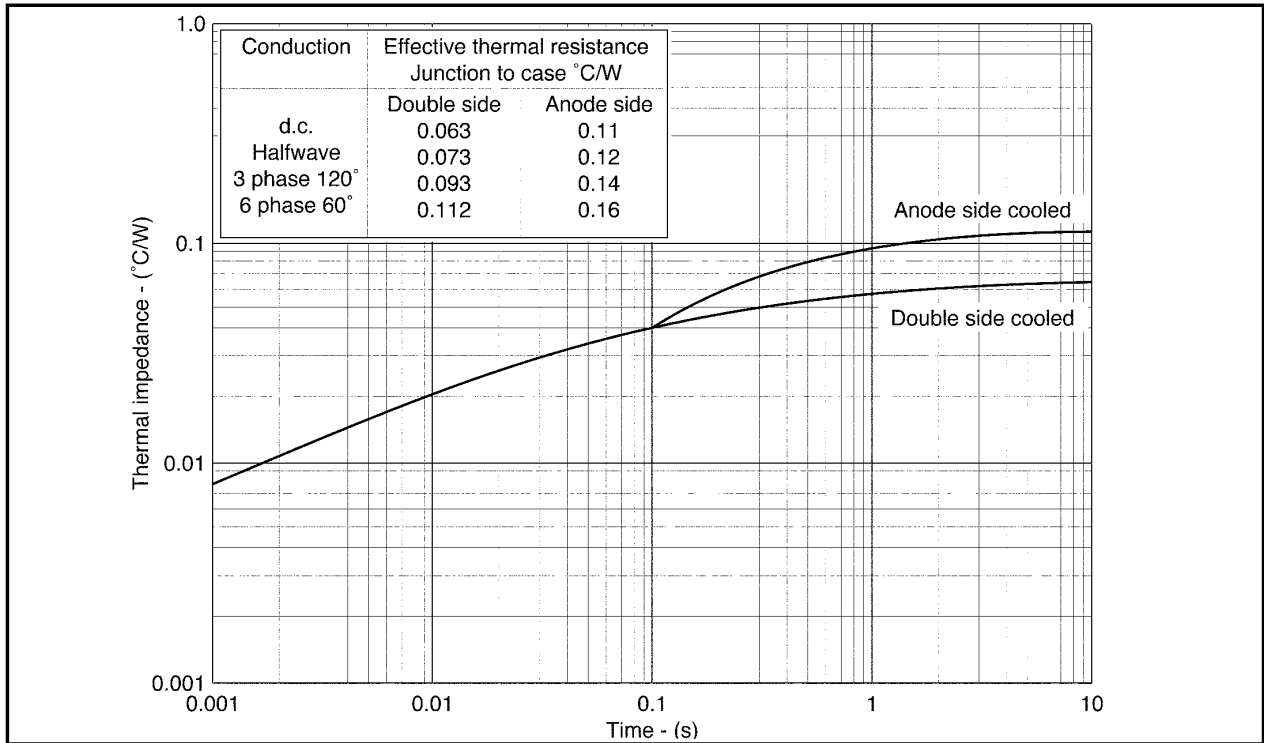


Maximum (limit) on-state characteristics

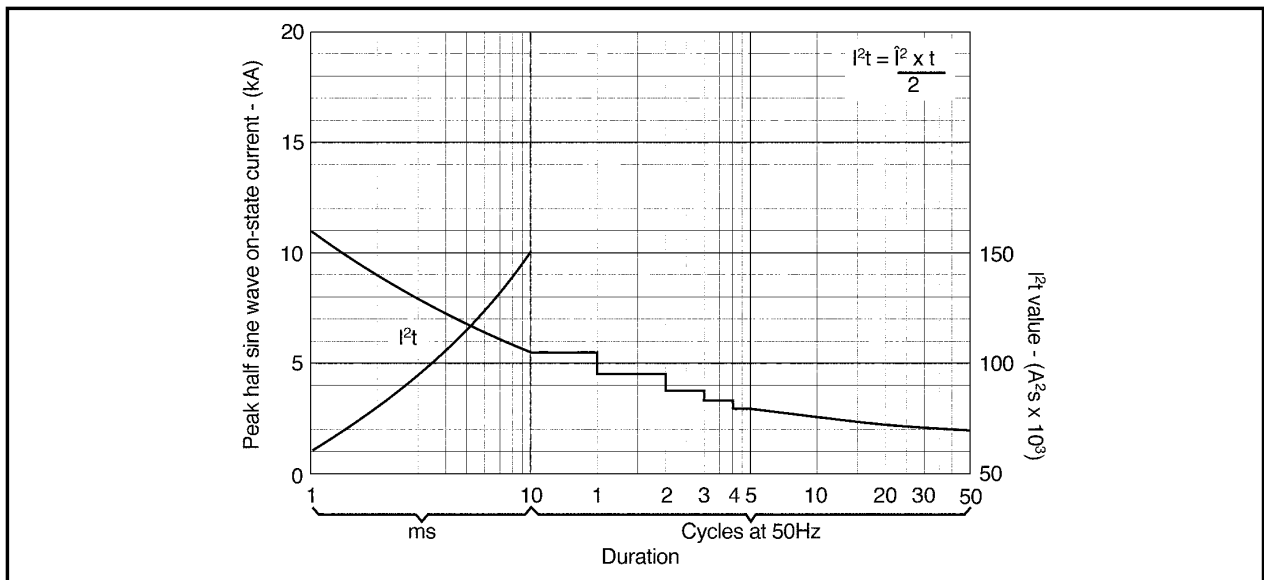


Dissipation curves





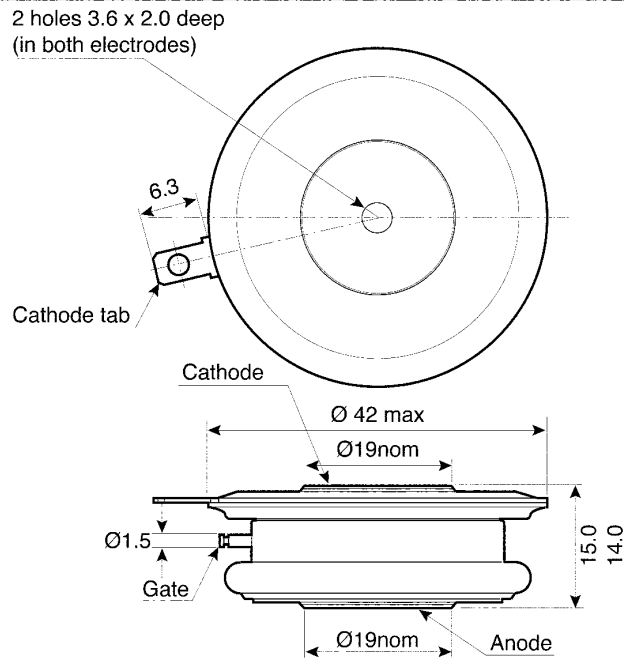
Maximum (limit) transient thermal impedance - junction to case



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