

Thyristors

DCR803



Technical Data

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

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR803/06	600	700
DCR803/08	800	900
DCR803/10	1000	1100
DCR803/12	1200	1300
DCR803/14	1400	1500
DCR803/16	1600	1700
DCR803/18	1800	1900

Features

- Double side cooling.
- Voltage grade upto 1800V.
- Weight 310gm (Approx.)

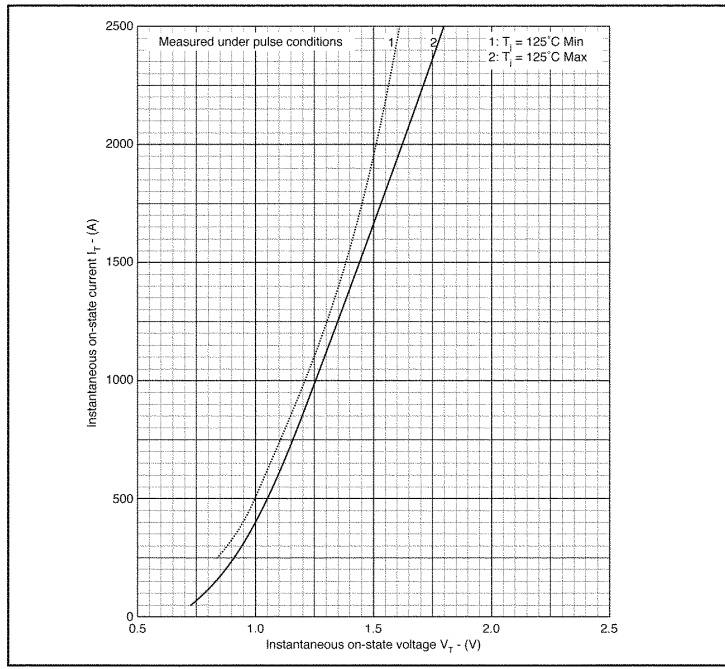
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load $T_C = 80^\circ C$	820 A
I_{TSM}	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 50\% V_{RRM}$	11.2 K.A.
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	14.0 K.A.
I^2T	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 50\% V_{RRM}$	625000 A ² s
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	975000 A ² s
I_{GT}	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	200 mA
V_{GT}	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	3.5 V
dv/dt	$T_{vj} = 125^\circ C$; Voltage = 67% V_{DRM}	*300 V/ μ S
$[di/dt]_{cr}$	Repetitive 50 Hz	500 A/ μ S
V_T	$T_{vj} = 25^\circ C$; $I_T = 1600 A$	1.50 V max
V_o	$T_{vj} = 125^\circ C$	0.85 V
R_o	$T_{vj} = 125^\circ C$	0.38 m
I_{RRM}/I_{DRM}	$T_{vj} = 125^\circ C$	50 mA
I_H		100 mA
I_L		1000 mA
$R_{th(i-c)}$	dc	0.032 $^\circ C/W$
$R_{th(i-h)}$		0.008 $^\circ C/W$
T_{vj}		125 $^\circ C$
T_{stg}		-40 to + 125 $^\circ C$
Mounting Force		12.5 KN
Case outline		G

* Higher dv/dt selection available.

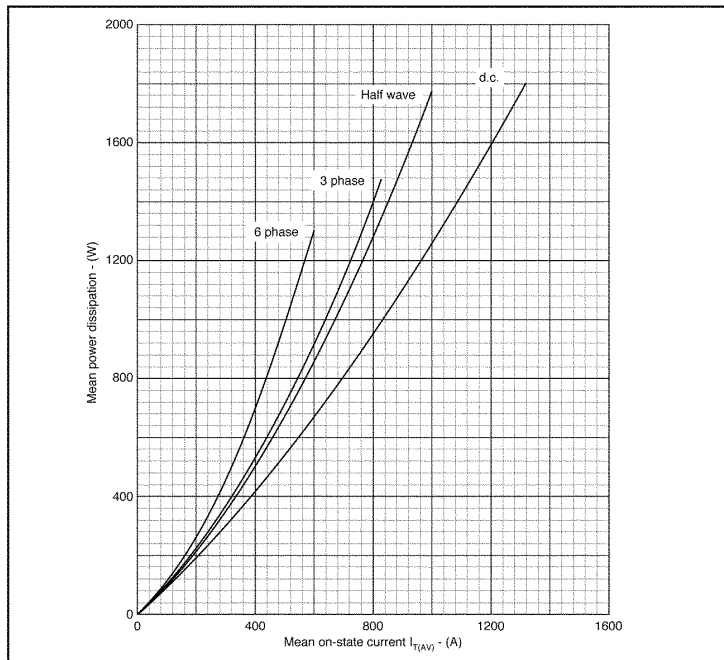


DCR803

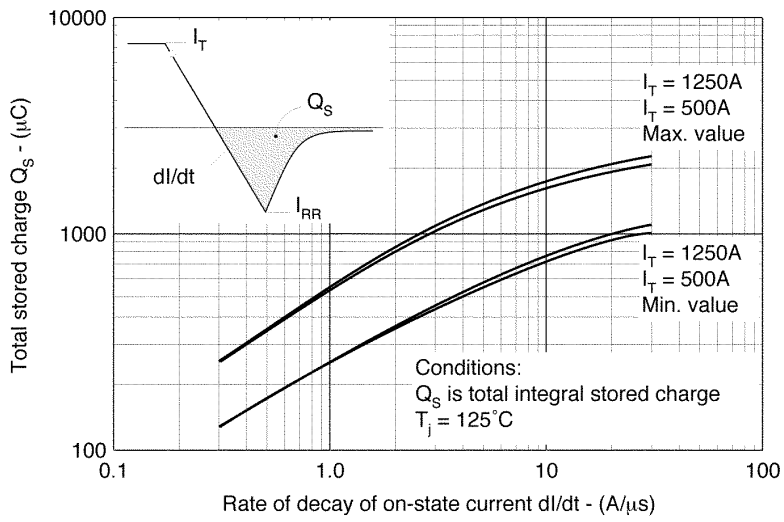
CURVES



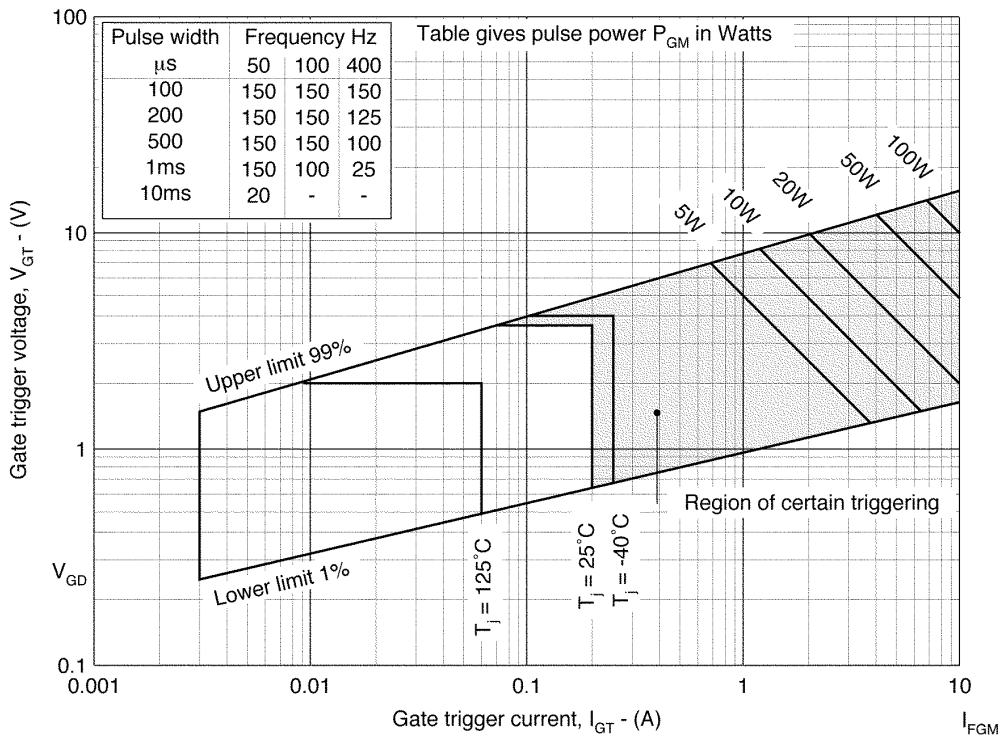
Maximum (limit) on-state characteristics



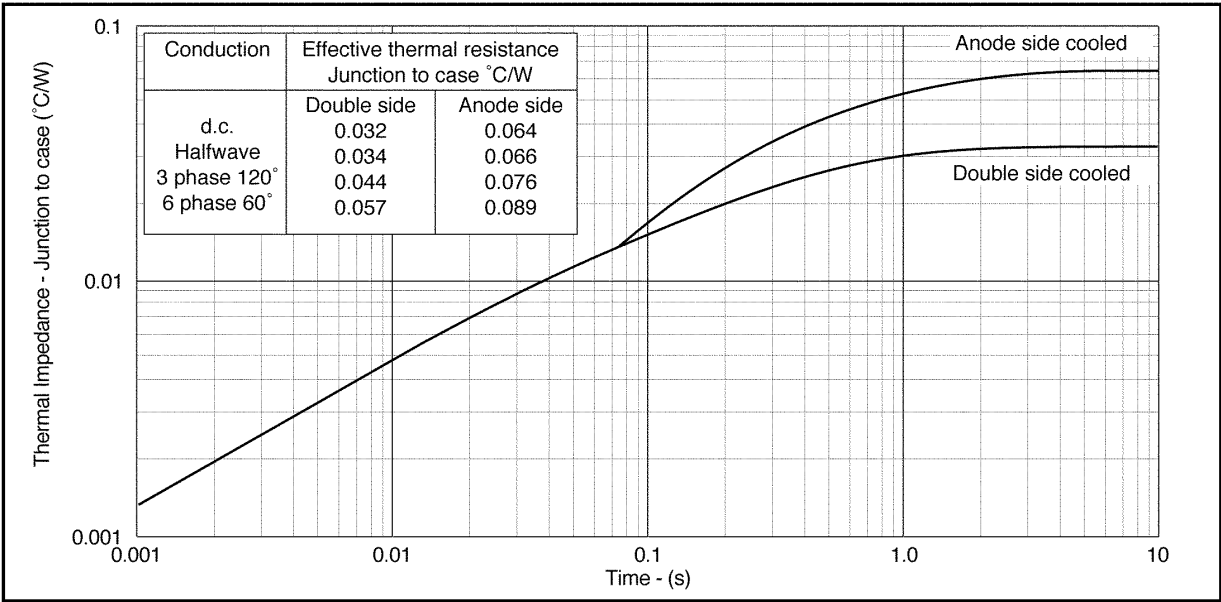
Dissipation curves



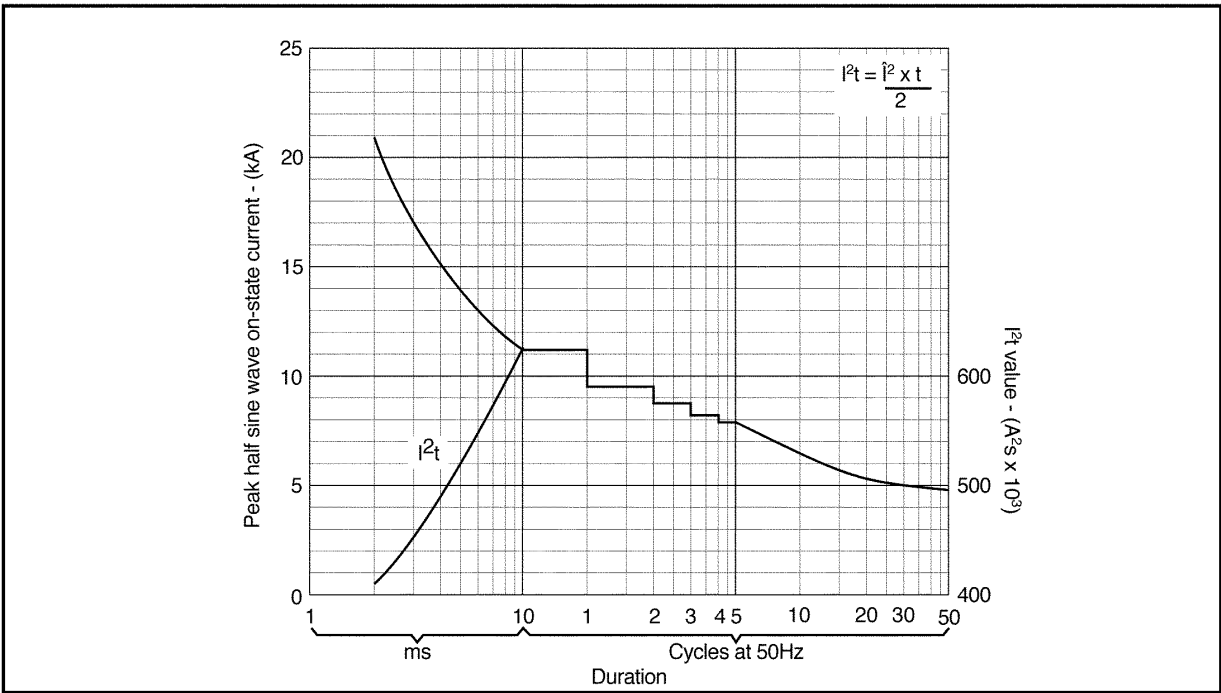
Stored charge



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.

