

Thyristors

DCR1277



Technical Data

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

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR1277/30	3000	3100
DCR1277/32	3200	3300
DCR1277/34	3400	3500
DCR1277/36	3600	3700
DCR1277/38	3800	3900
DCR1277/39	3900	4000
DCR1277/40	4000	4100

Features

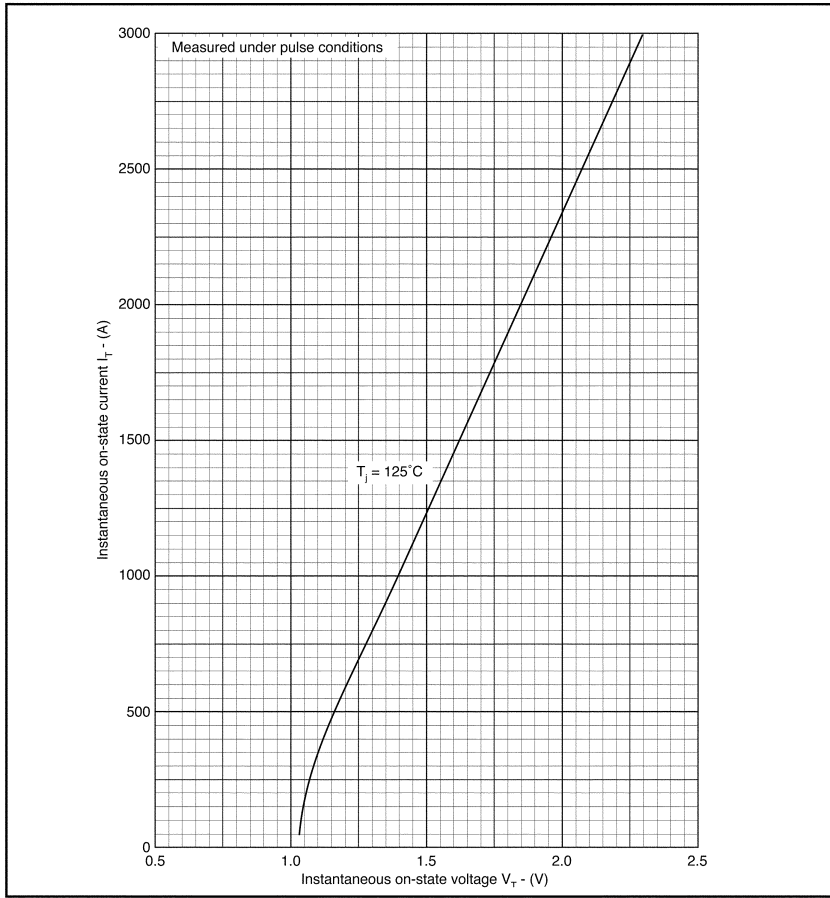
- Double side cooling.
- Voltage grade upto 4000V
- Weight 450gm (Approx.)

Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; $T_C = 60^\circ C$	1259 A
I_{TSM}	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 50\% V_{RRM}$	19.0 KA
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	23.75 KA
I^2t	$T_{vj} = 125^\circ C$, 10 ms half sine, $V_R = 50\% V_{RRM}$	1800000 A^2s
	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	2820000 A^2s
I_{GT}	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	400 mA
V_{GT}	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$	4.0V
dv/dt	$T_{vj} = 125^\circ C$; Voltage = 67 % V_{DRM}	*300V/ μs
$[di/dt]_{CR}$	Repetitive 50 Hz	100 A/ μs
V_T	$T_{vj} = 25^\circ C$; $I_T = 2900 A$	2.025 V max
V_O	$T_{vj} = 125^\circ C$	0.95 V
R_O	$T_{vj} = 125^\circ C$	0.45 m
I_{RRM}/I_{DRM}	$T_{vj} = 130^\circ C$	150 mA
I_H I_L		500 mA
		1000 mA
$R_{th(j-c)}$	dc	0.020 $^\circ C/W$
$R_{th(c-h)}$		0.004 $^\circ C/W$
T_{vj}		+125 $^\circ C$
T_{stg}		-40...+125 $^\circ C$
Mounting Force		20-22 KN
Case outline		D

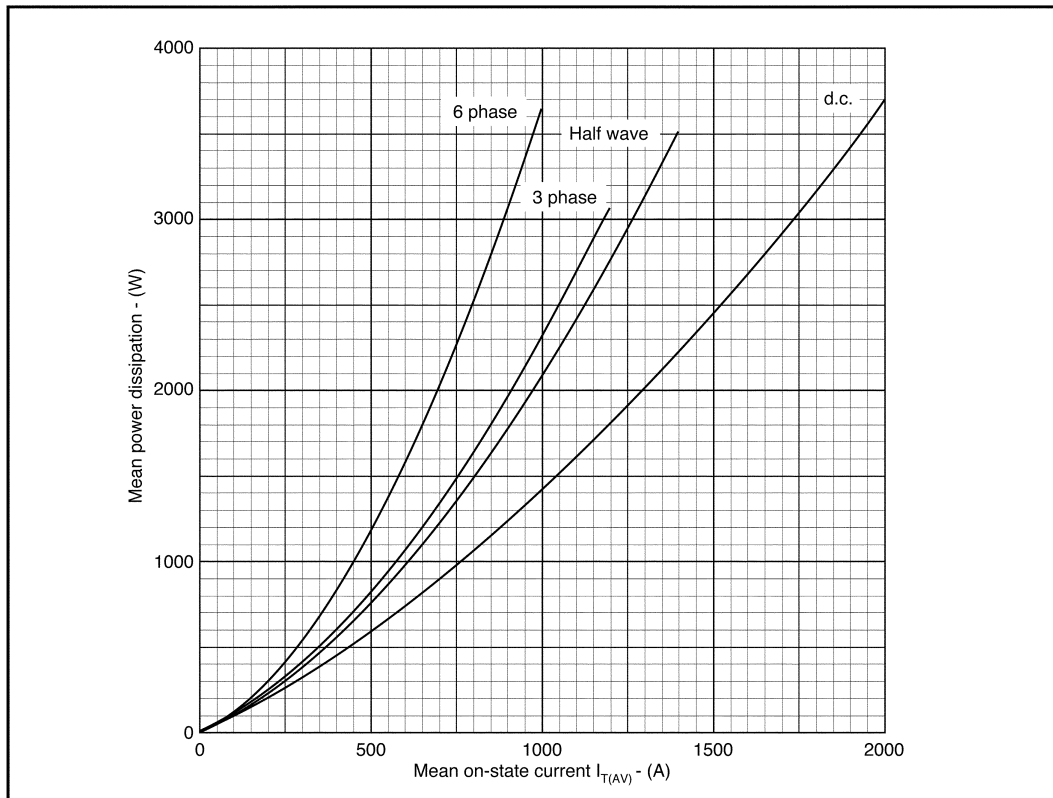
* Higher dv/dt selection available.



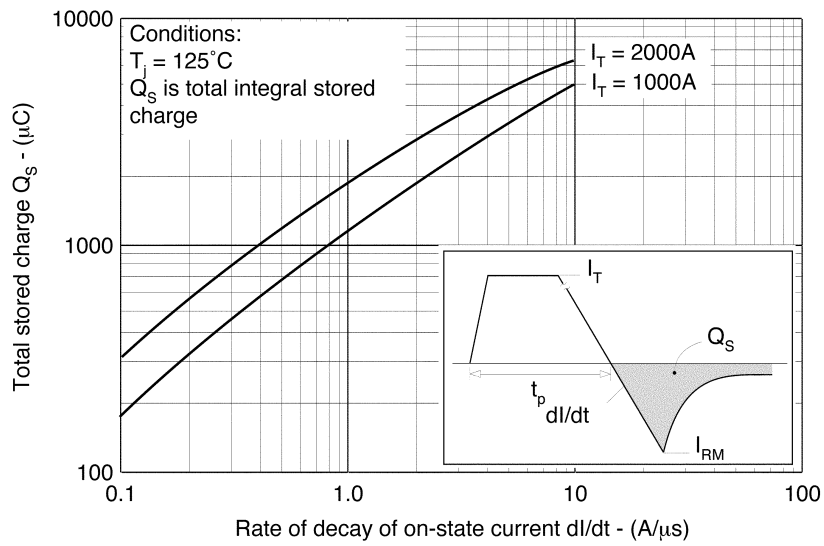
CURVES



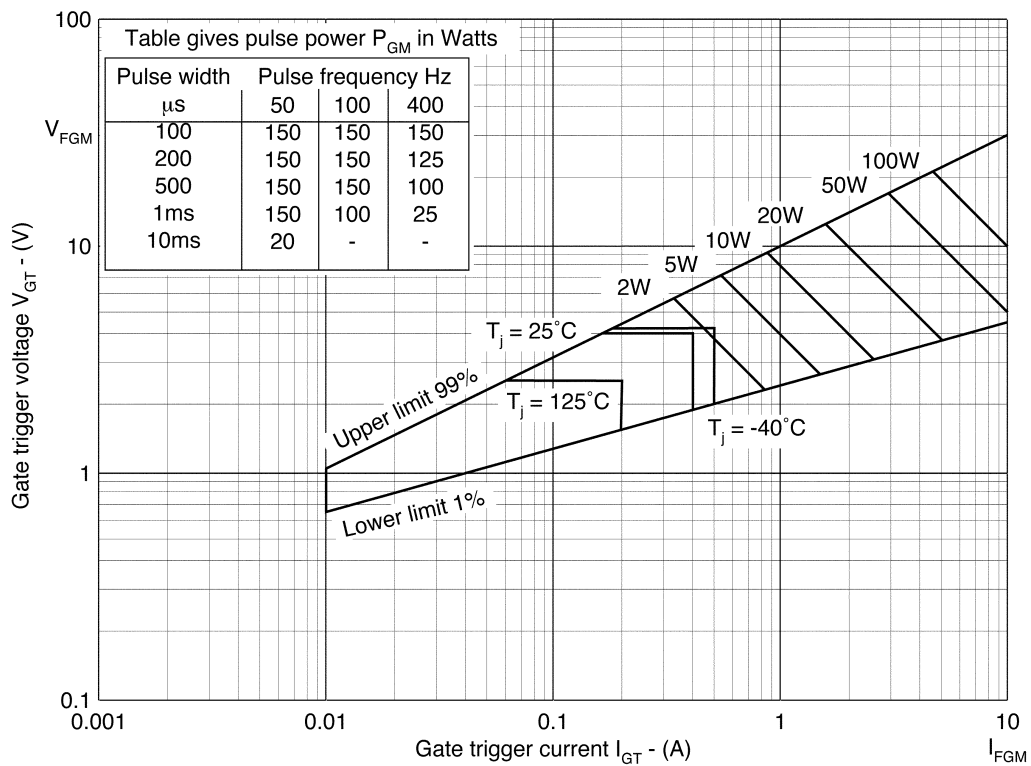
Maximum (limit) on-state characteristics



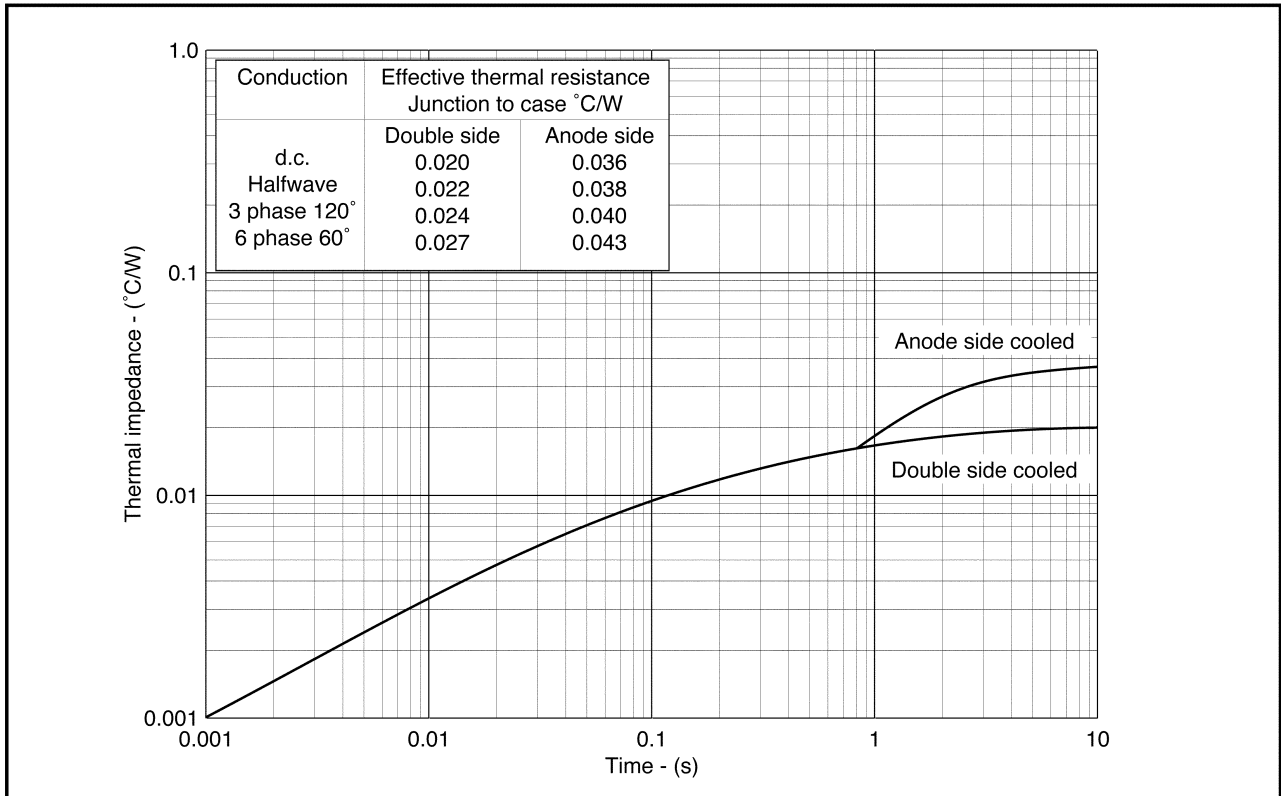
Dissipation curves



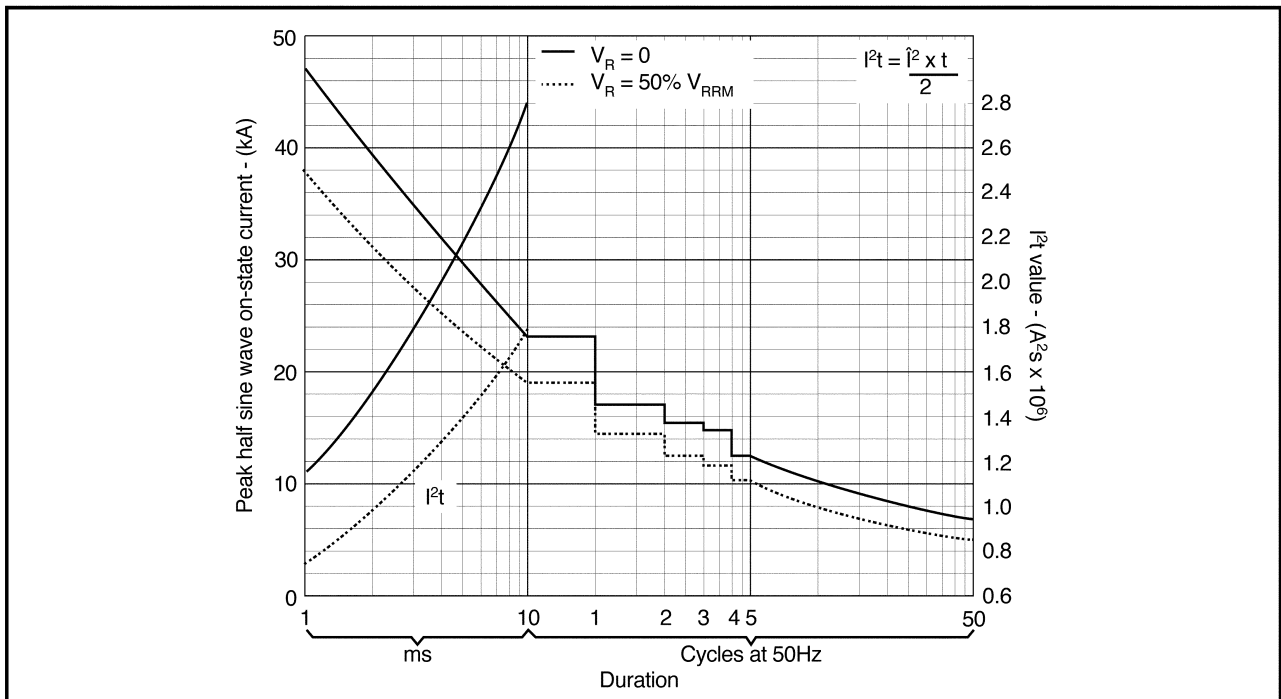
Stored charge



Gate characteristics



Maximum (limit) transient thermal impedance - junction to case



Surge (non-repetitive) on-state current vs time at $T_{case} 125^\circ C$

PACKAGE DETAILS

DO NOT SCALE.

