

Thyristors

DCR1478



Technical Data

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

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR1478/30	3000	3100
DCR1478/32	3200	3300
DCR1478/34	3400	3500
DCR1478/36	3600	3700
DCR1478/40	4000	4100
DCR1478/44	4400	4500
DCR1478/48	4800	4900

Features

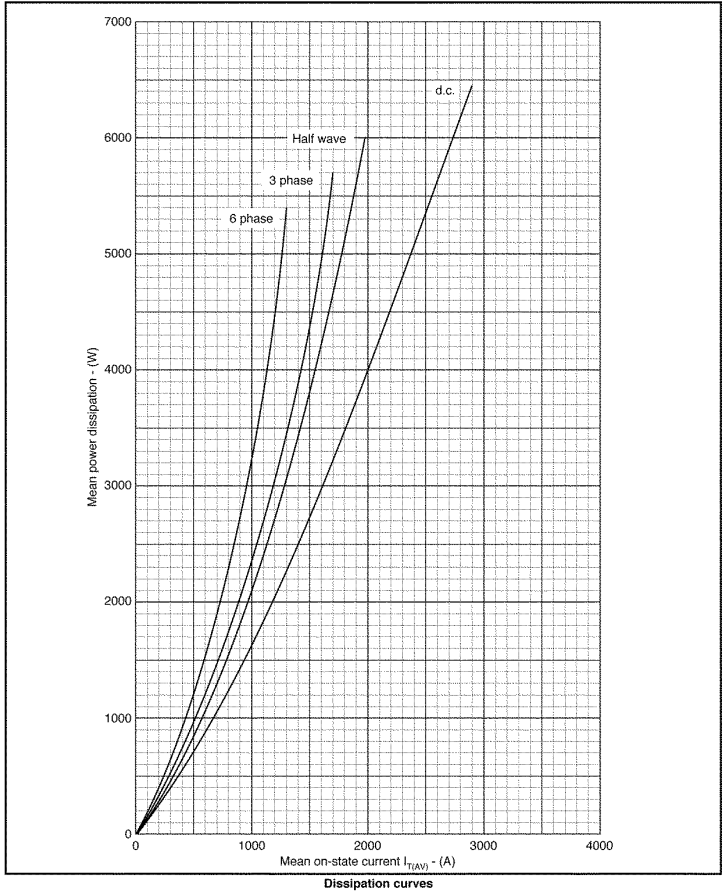
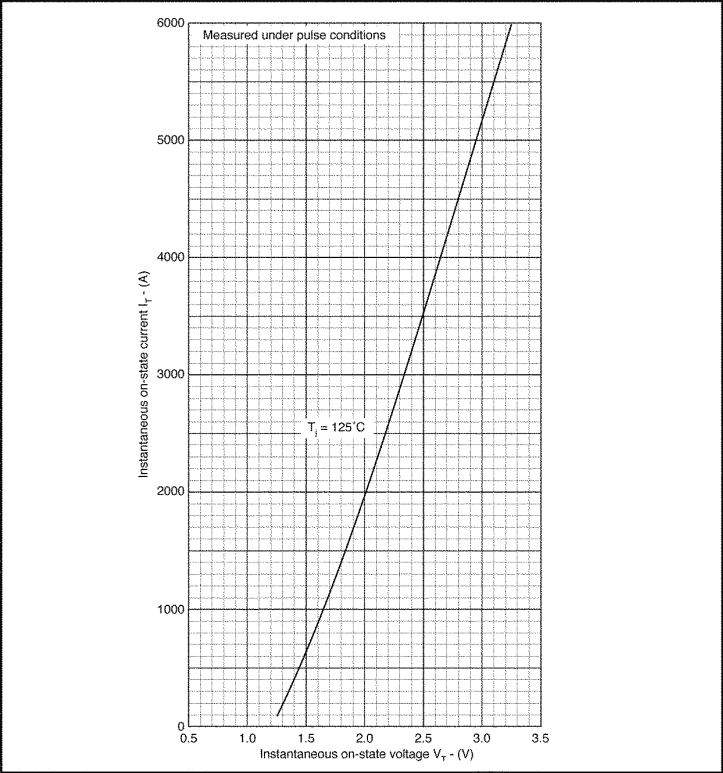
- Double side cooling.
- Voltage grade upto 4800V
- Weight 1600gm (Approx.)

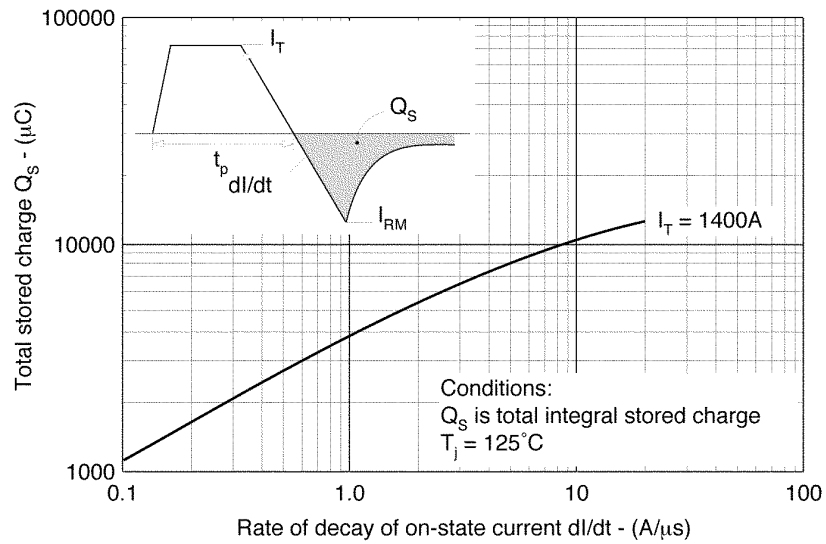
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; $T_C = 60^\circ C$	2073 A
I_{TSM}	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 50\% V_{RRM}$ $T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	22.0 KA 27.5 KA
I^2t	$T_{vj} = 125^\circ C$, 10 ms half sine, $V_R = 50\% V_{RRM}$ $T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	2420000 A^2s 3780000 A^2s
I_{GT} V_{GT} dv/dt $[di/dt]_{CR}$	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$ $T_{vj} = 25^\circ C$; $V_{DRM} = 5V$ $T_{vj} = 125^\circ C$; Voltage = 67 % V_{DRM} Repetitive 50 Hz	400 mA 4.0 V *500 V/ μs 100 A/ μs
V_T V_O R_O I_{RRM}/I_{DRM}	$T_{vj} = 25^\circ C$; $I_T = 2900 A$ $T_{vj} = 125^\circ C$ $T_{vj} = 125^\circ C$ $T_{vj} = 130^\circ C$	2.10 V max 1.4 V 0.31 m 250 mA
I_H I_L		500 mA 1000 mA
$R_{th(j-c)}$ $R_{th(c-h)}$ T_{vj} T_{stg}	dc	0.0095 $^\circ C/W$ 0.002 $^\circ C/W$ +125 $^\circ C$ -40....+125 $^\circ C$
Mounting force		38-47 KN
Case outline		Y

* Higher dv/dt selection available.

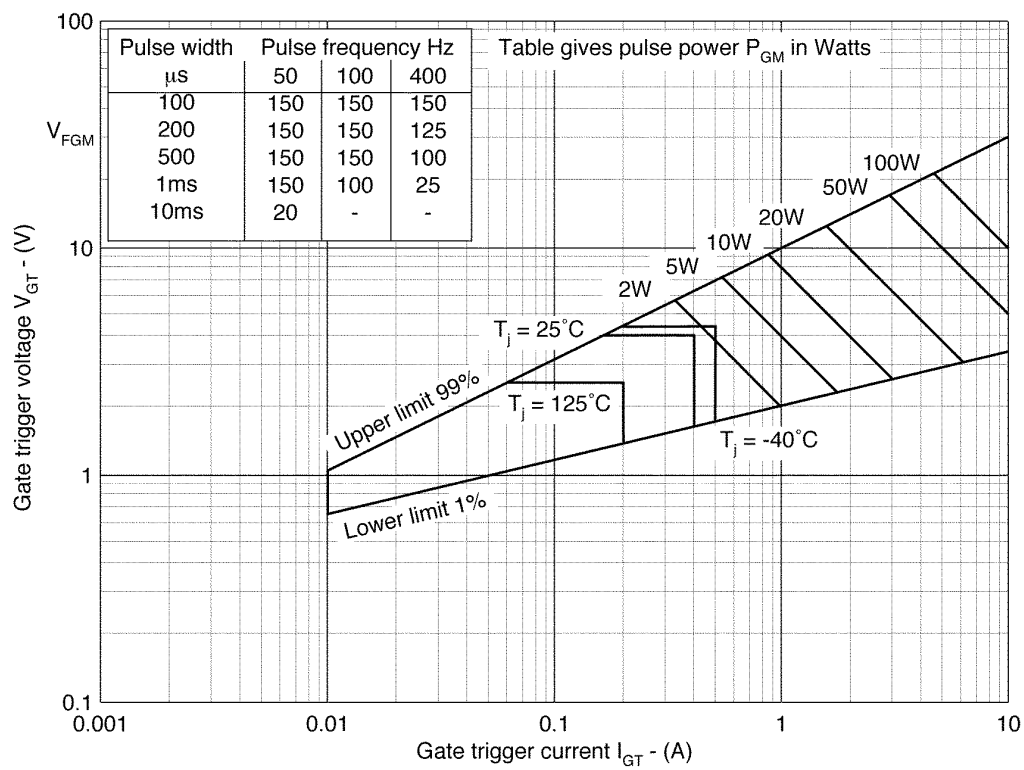


CURVES

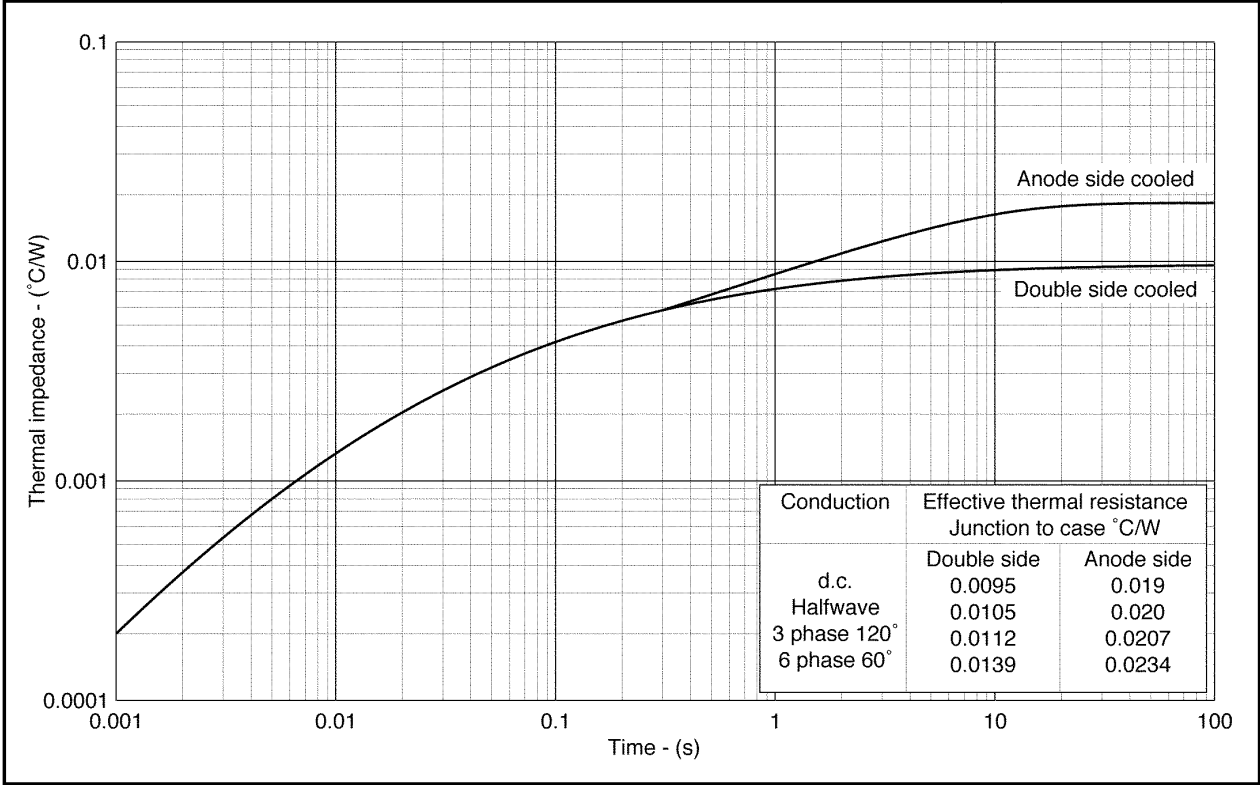




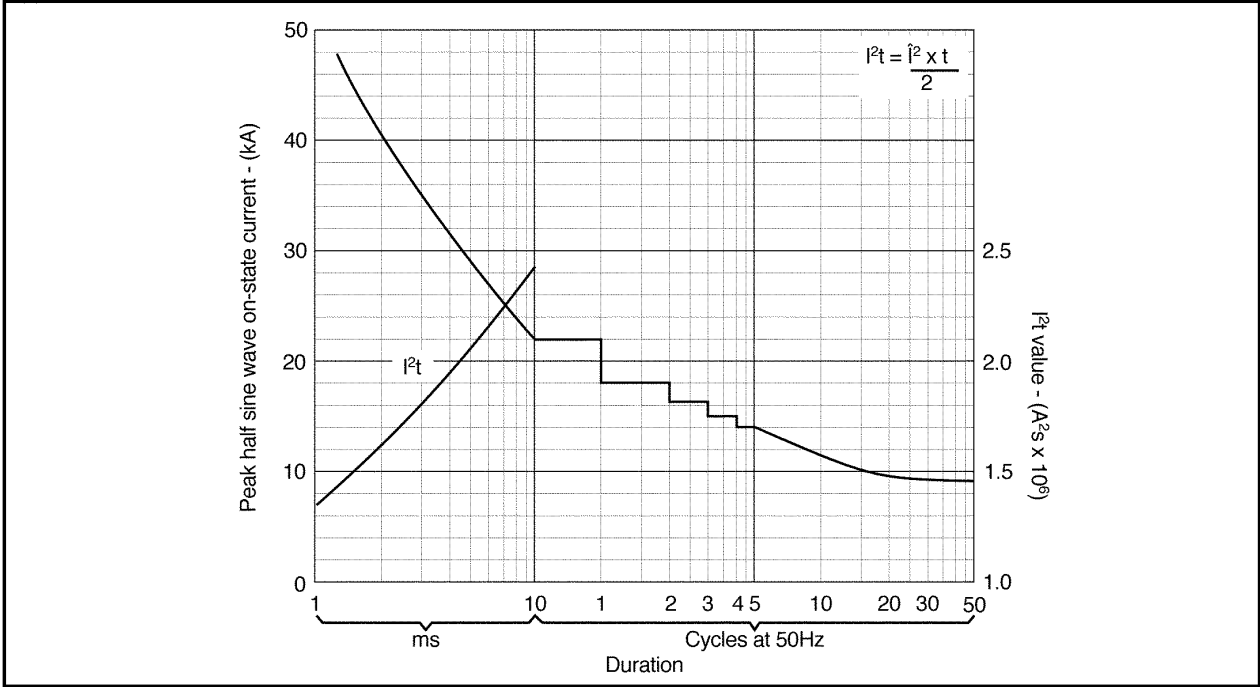
Stored charge



Gate characteristics



Maximum (limit) transient thermal impedance - junction to case



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

PACKAGE DETAILS

DO NOT SCALE.

