Thyristors
DCR1475

USHA (INDIA) LTD

Technical Data

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

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR1475/20	2000	2100
DCR1475/22	2200	2300
DCR1475/24	2400	2500
DCR1475/28	2800	2900
DCR1475/30	3000	3100

Features

- Double side cooling.
- Voltage grade upto 3000V
- Weight 1600 gm (Approx.)

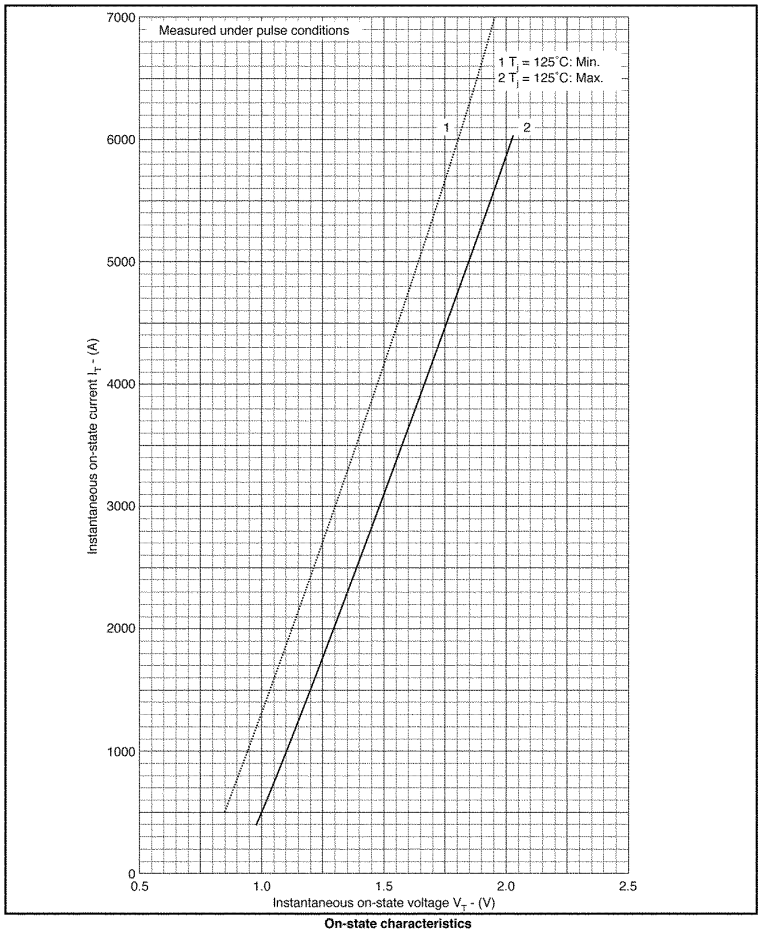
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; T_C = 60 ˚C	2805 A
I_{TSM}	Tvj = 125 ˚C ; 10 ms half sine, V_R = 50% V_{RRM}	36.8 KA
	Tvj = 125 ˚C ; 10 ms half sine, V_R = 0	46.0 KA
I^2t	Tvj = 125 ˚C, 10 ms half sine, V_R = 50% V_{RRM}	6700000 A^2s
	Tvj = 125 ˚C ; 10 ms half sine, V_R = 0	10600000 A^2s
I_{GT}	Tvj = 25 ˚C; V_{DRM} = 5V	400 mA
V_{GT}	Tvj = 25 ˚C; V_{DRM} = 5V	4.0 V
dv/dt	Tvj = 125 ˚C; Voltage = 67 % V_{DRM}	*200 V/µs
$[di/dt]_{CR}$	Repetitive 50 Hz	150 A/µs
V_T	Tvj = 25 ˚C; I_T = 2900 A	1.50 V max
V_O	Tvj = 125 ˚C	0.885 V
R_O	Tvj = 125 ˚C	0.191 mΩ
I_{RRM}/I_{DRM}	Tvj = 130 ˚C	250 mA
I_H		100 mA
I_L		300 mA
$R_{th(j-c)}$	dc	0.0095 ˚C/W
$R_{th(c-h)}$		0.002 ˚C/W
T_{vj}		+125 ˚C
T_{stg}		-40....+125 ˚C
Mounting Force		38-47 KN
Case outline		Y

* Higher dv/dt selection available.

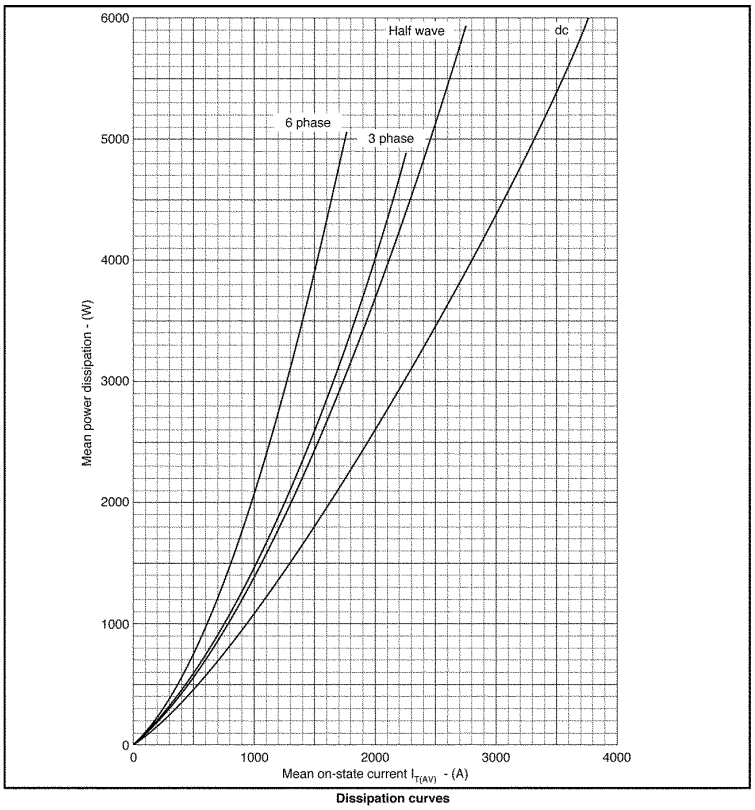
ISO 14001 CERTIFIED
AN ISO 9002 COMPANY

DCR1475

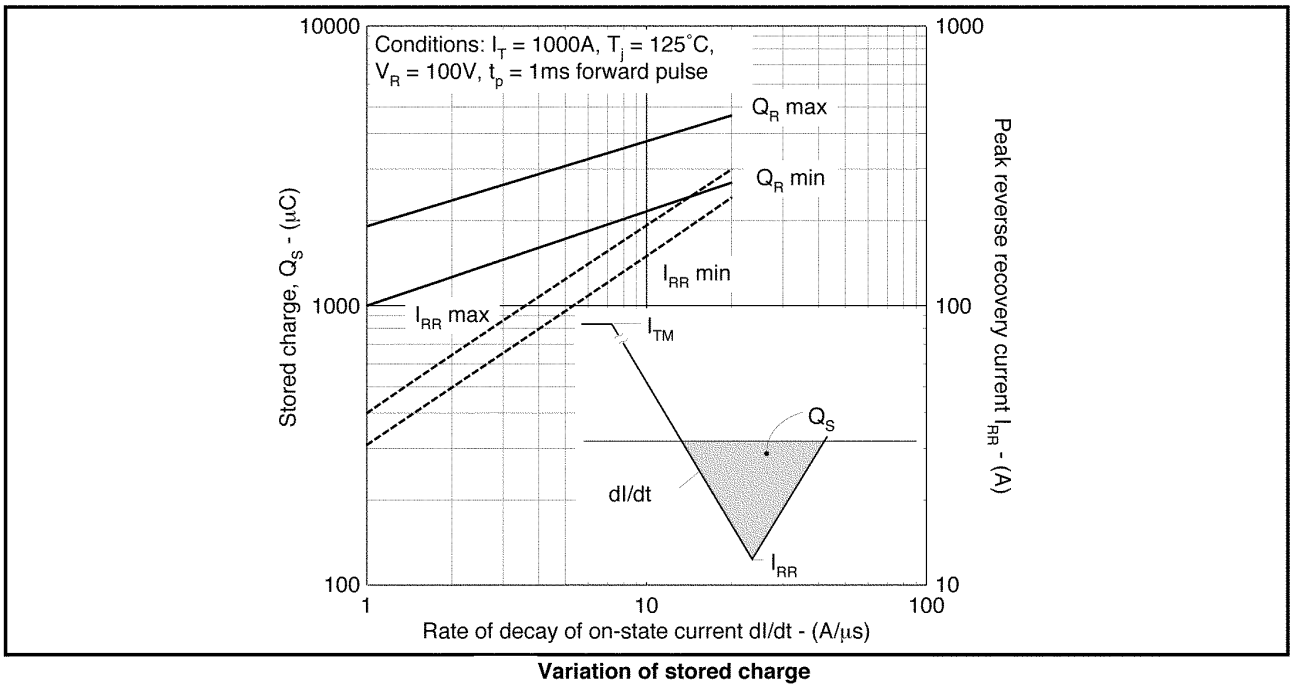
CURVES



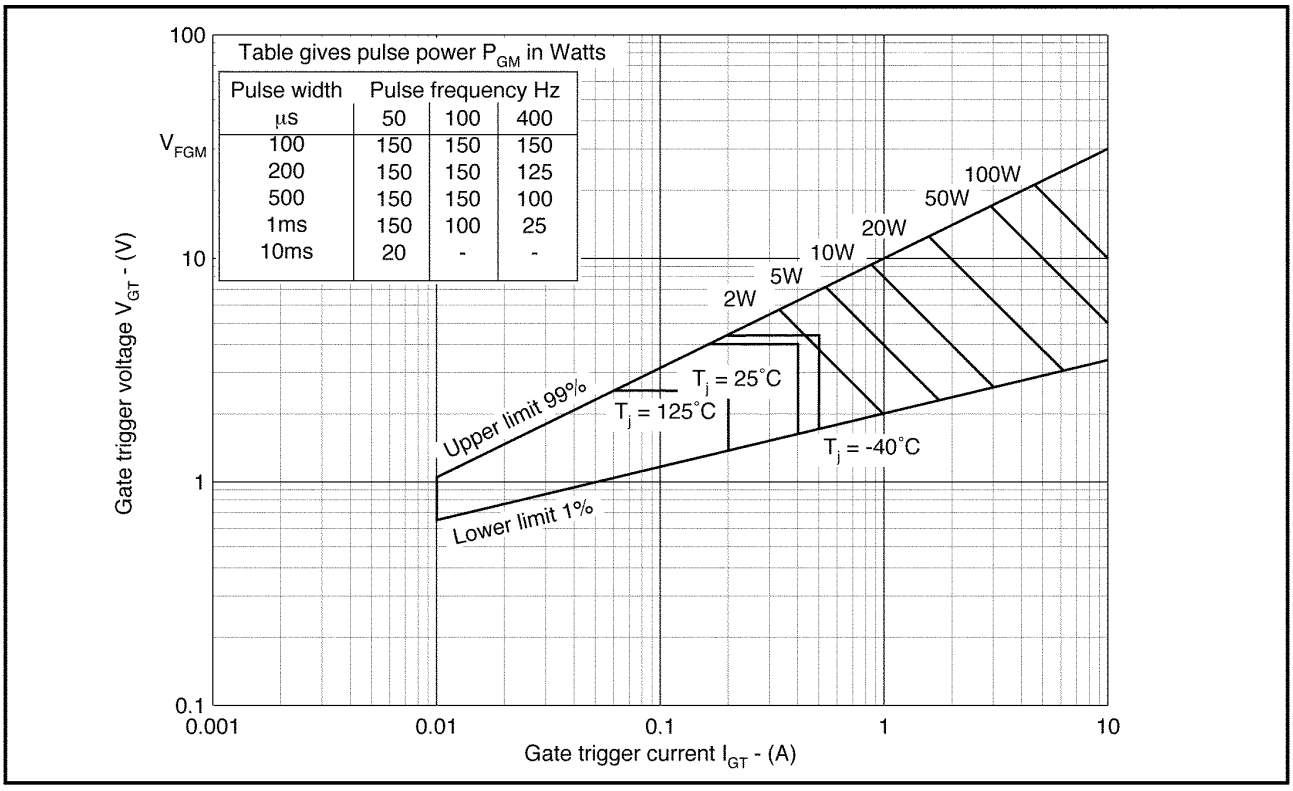
On-state characteristics



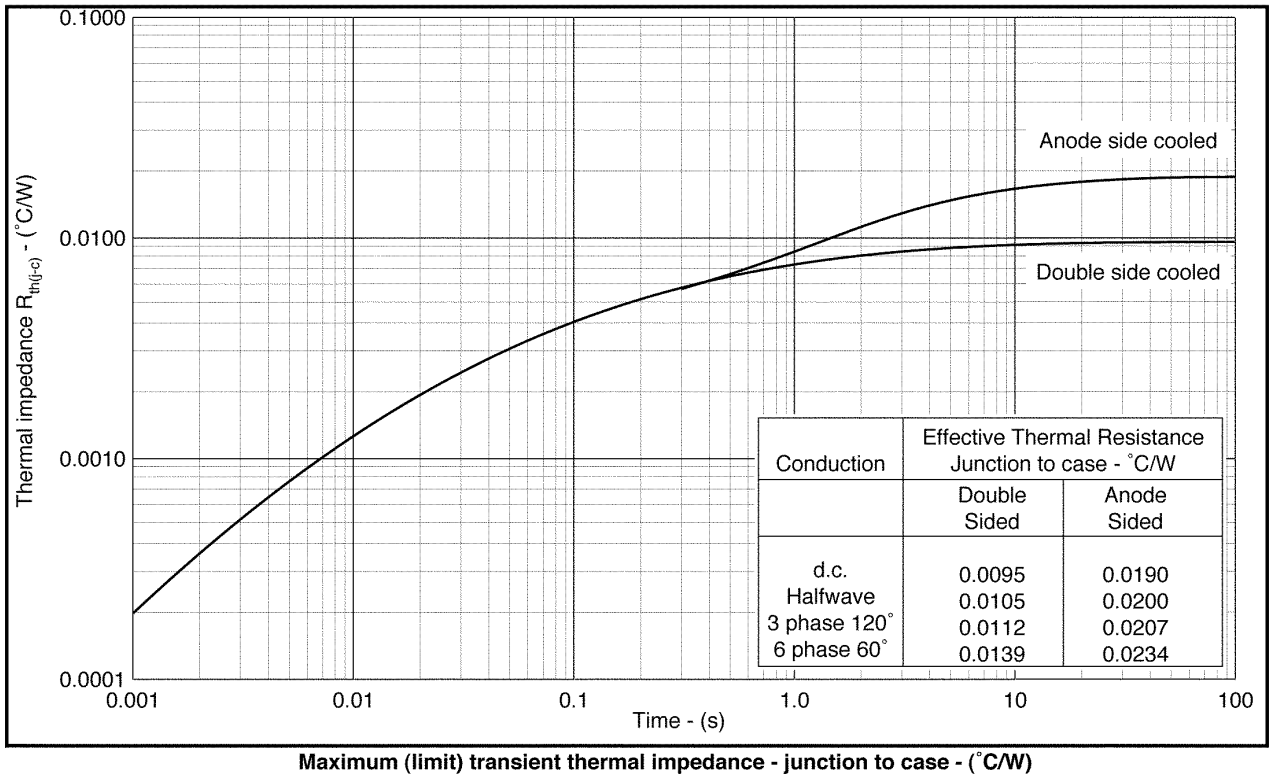
Dissipation curves



Variation of stored charge

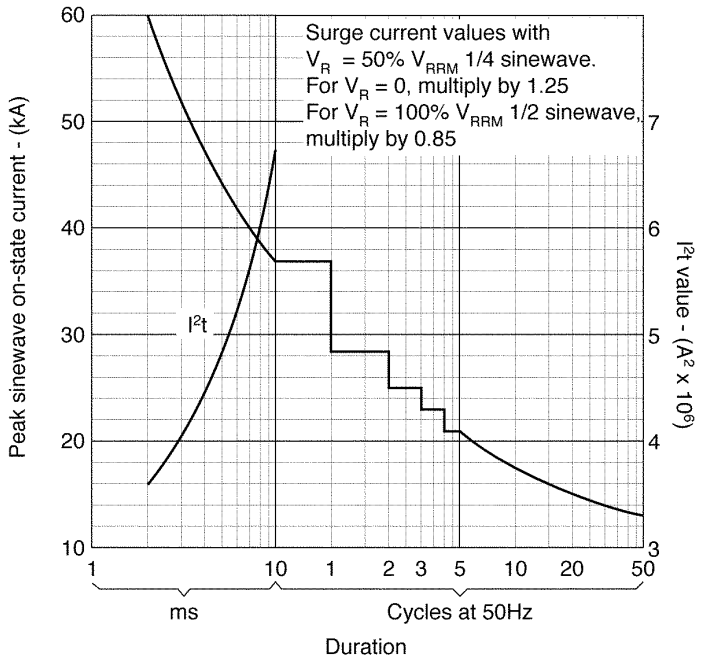


Gate characteristics



Conduction	Effective Thermal Resistance Junction to case - °C/W	
	Double Sided	Anode Sided
d.c.	0.0095	0.0190
Halfwave	0.0105	0.0200
3 phase 120°	0.0112	0.0207
6 phase 60°	0.0139	0.0234

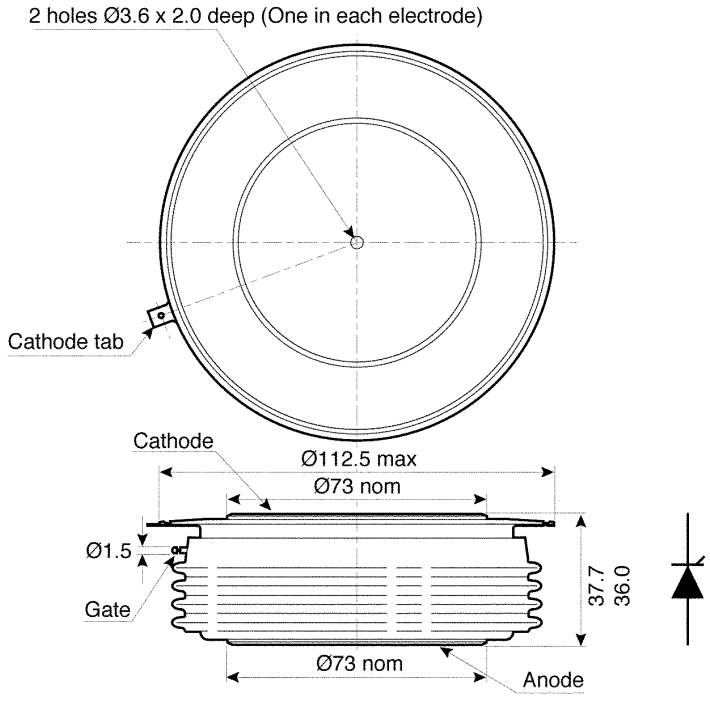
Maximum (limit) transient thermal impedance - junction to case - (°C/W)



Surge (non-repetitive) on-state current vs time (T_{case} = 125°C)

PACKAGE DETAILS

DO NOT SCALE.



Nominal weight: 1600g
Clamping force: 38-47 kN

Package outine : Y