

Thyristors

(Fast Switching)

DCR944

Technical Data

Typical applications : High power invertors & choppers, Railway traction, UPS, Induction heating, AC motor drives & Cyclconvertors.

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
DCR944/30	3000	3100
DCR944/32	3200	3300
DCR944/34	3400	3500
DCR944/35	3500	3600

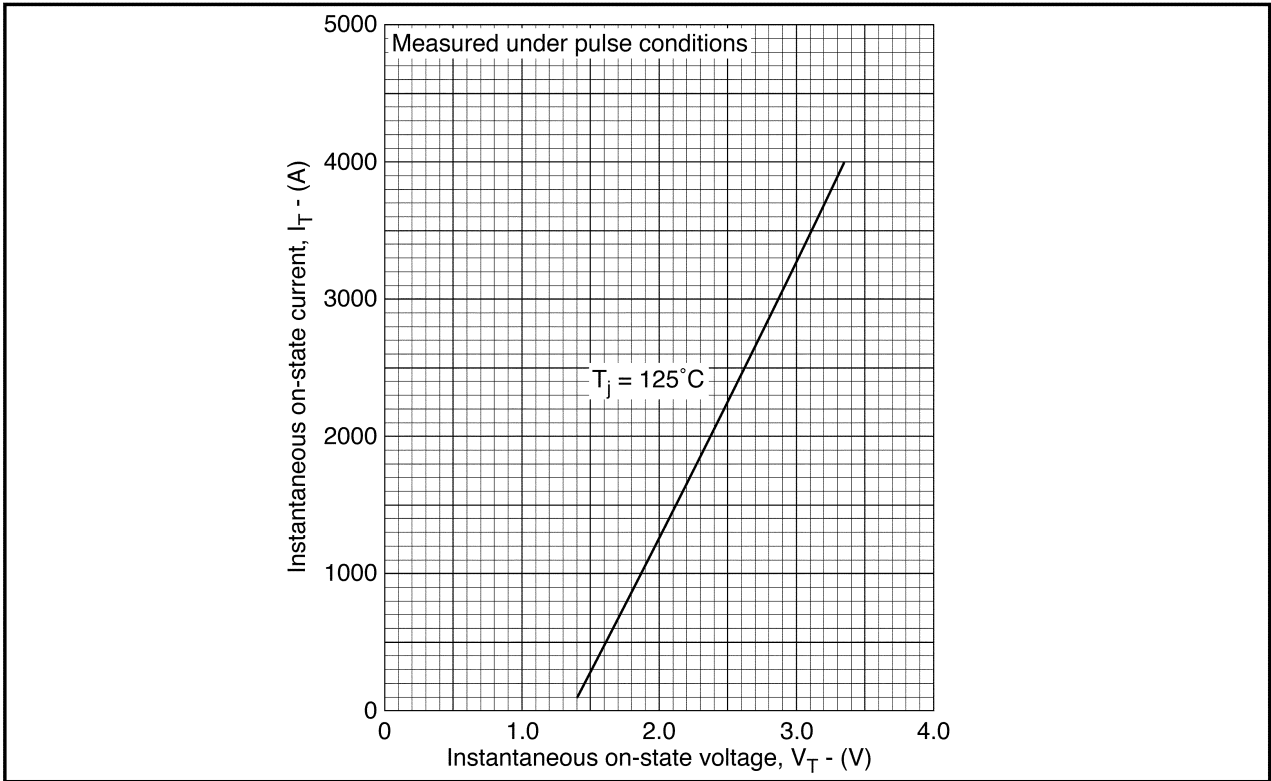
Features

- Double side cooling.
- Voltage grade upto 3500V
- High surge capability.
- Weight 500gm (Approx.)

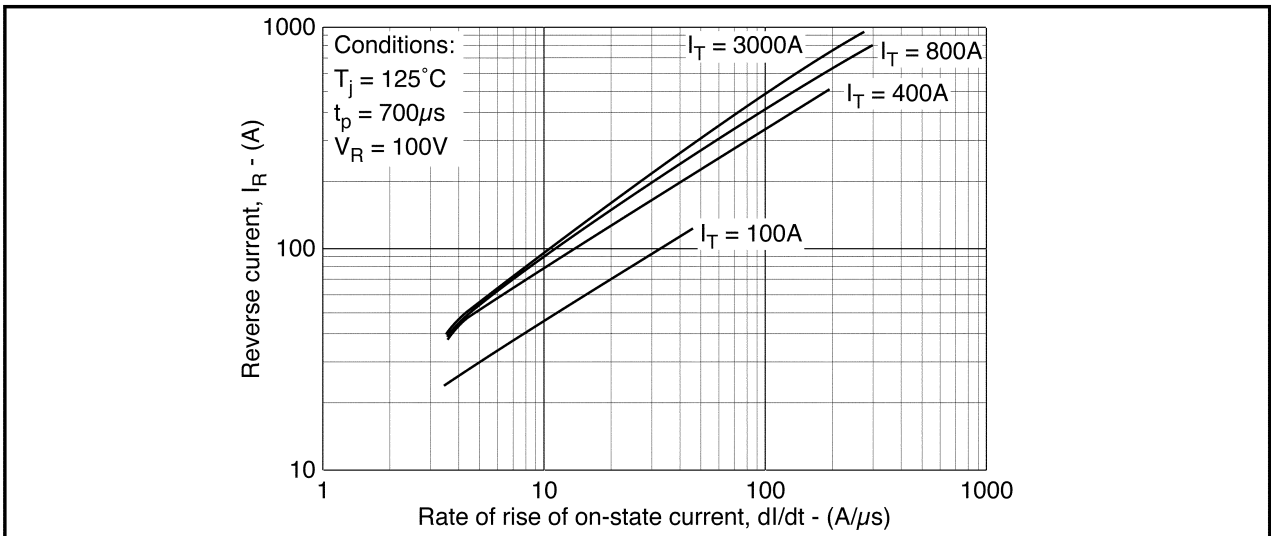
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; $T_c = 80^\circ C$	850 A
I_{TSM}	$T_{vj} = 125^\circ C$; 10 ms half sine, $V_R = 0$	13.0 KA
I^2t	$T_{vj} = 125^\circ C$, 10 ms half sine, $V_R = 0$	845000 A ² s
I_{GT} V_{GT} dv/dt $[di/dt]_{CR}$	$T_{vj} = 25^\circ C$; $V_{DRM} = 5V$ $T_{vj} = 25^\circ C$; $V_{DRM} = 5V$ $T_{vj} = 125^\circ C$; Voltage = 67 % V_{DRM} Repetitive 50 Hz Non-repetitive	250 mA 3.0V *500V/ μ s 500 A/ μ s 800 A/ μ s
t_q	$T_{vj} = 125^\circ C$; $I_T = 500 A$; $V_R = 100 V$ $dv/dt = 20 V/\mu s$ $di/dt = 50 A/\mu s$	120 μ s
V_T V_O R_O I_{RRM}/I_{DRM}	$T_{vj} = 25^\circ C$; $I_T = 1500 A$ $T_{vj} = 125^\circ C$ $T_{vj} = 125^\circ C$ $T_{vj} = 125^\circ C$	2.40 V max 1.35 V 0.50 m 100 mA
I_H I_L	$T_{vj} = 25^\circ C$; Typical value $T_{vj} = 25^\circ C$; Typical value	100 mA 300 mA
$R_{th(j-c)}$ $R_{th(c-h)}$ T_{vj} T_{stg}	dc	0.020 $^\circ C/W$ 0.006 $^\circ C/W$ +125 $^\circ C$ -40...+125 $^\circ C$
Mounting force		20 - 22 KN
Case outline		F

* Higher dv/dt selection available.





Maximum (limit) on-state characteristics



Reverse current vs rate of rise of on-state current

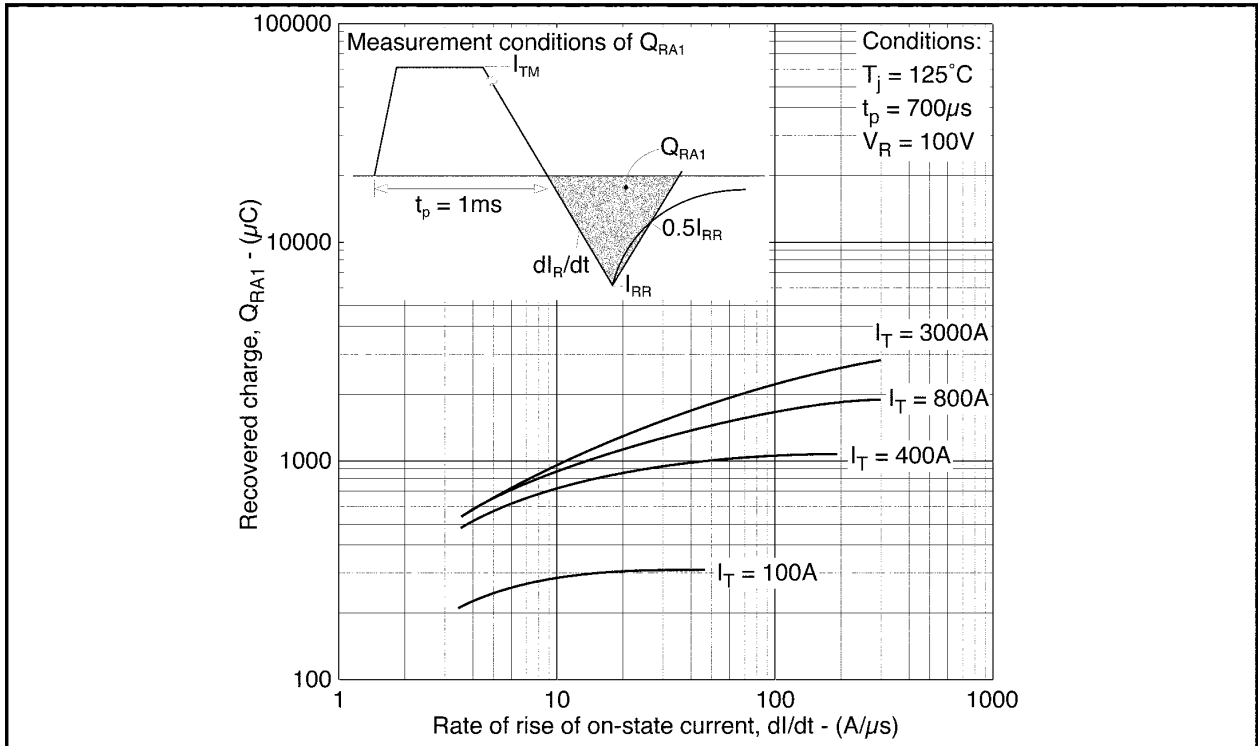


Fig.3 Recovered charge vs rate of rise of on-state current

PACKAGE DETAILS

DO NOT SCALE.

