

# 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

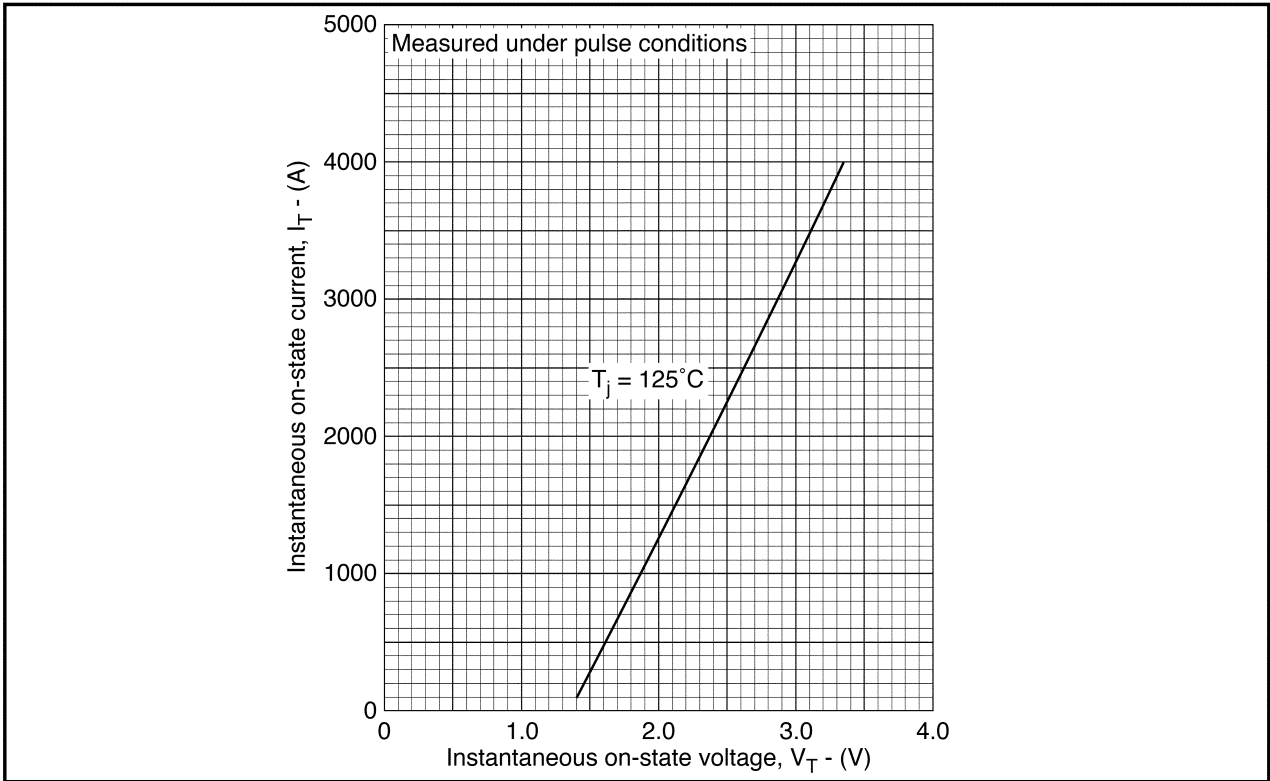
### Features

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

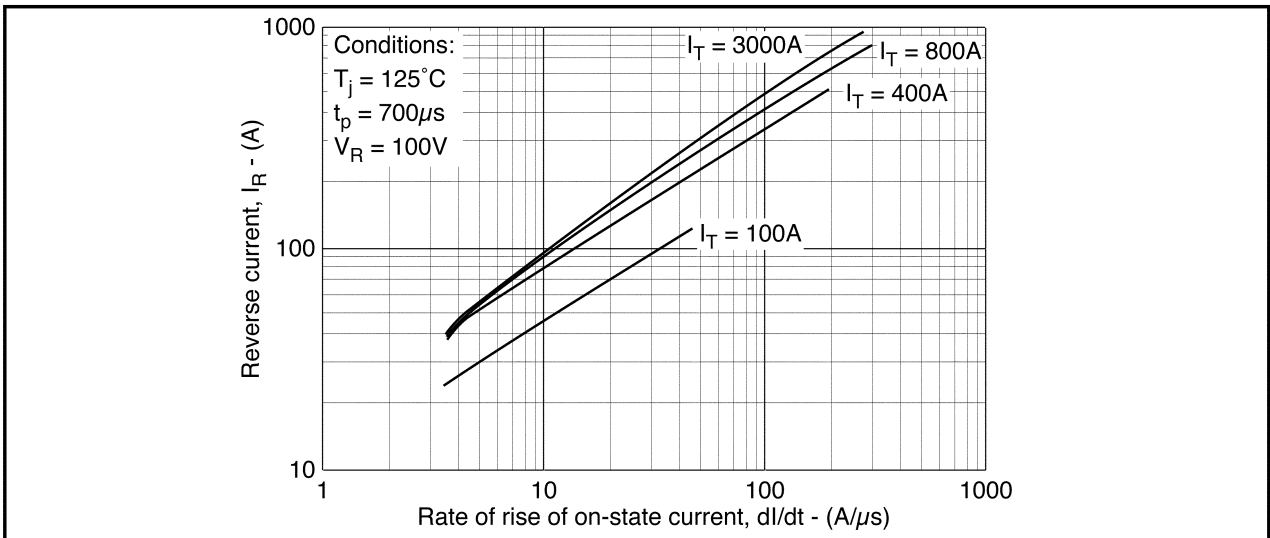
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; $T_c = 80^\circ C$	850 A
$I_{TSM}$	$T_{vj} = 125^\circ C$ ; 10 ms half sine, $V_R = 0$	13.0 KA
$I^2t$	$T_{vj} = 125^\circ C$ , 10 ms half sine, $V_R = 0$	845000 A <sup>2</sup> s
$I_{GT}$ $V_{GT}$ $dv/dt$ $[di/dt]_{CR}$ $t_q$	$T_{vj} = 25^\circ C$ ; $V_{DRM} = 5V$ $T_{vj} = 25^\circ C$ ; $V_{DRM} = 5V$ $T_{vj} = 125^\circ C$ ; Voltage = 67 % $V_{DRM}$ Repetitive 50 Hz Non-repetitive $T_{vj} = 125^\circ C$ ; $I_T = 500 A$ ; $V_R = 100 V$ $dv/dt = 20 V/\mu s$ $di/dt = 50 A/\mu s$	250 mA 3.0V *500V/ $\mu s$ 500 A/ $\mu s$ 800 A/ $\mu s$ 120 $\mu s$
$V_T$ $V_O$ $R_O$ $I_{RRM}/I_{DRM}$	$T_{vj} = 25^\circ C$ ; $I_T = 1500 A$ $T_{vj} = 125^\circ C$ $T_{vj} = 125^\circ C$ $T_{vj} = 125^\circ C$	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

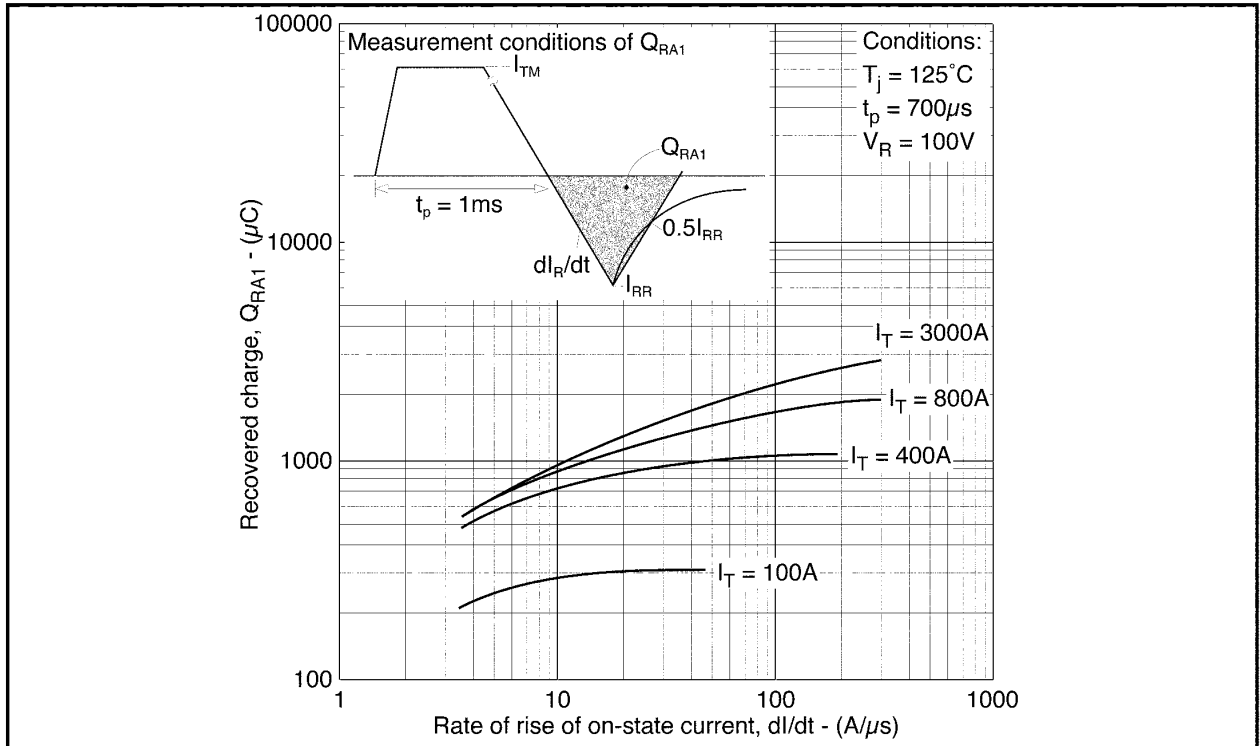


Fig.3 Recovered charge vs rate of rise of on-state current

**PACKAGE DETAILS**

DO NOT SCALE.

