

FEATURES

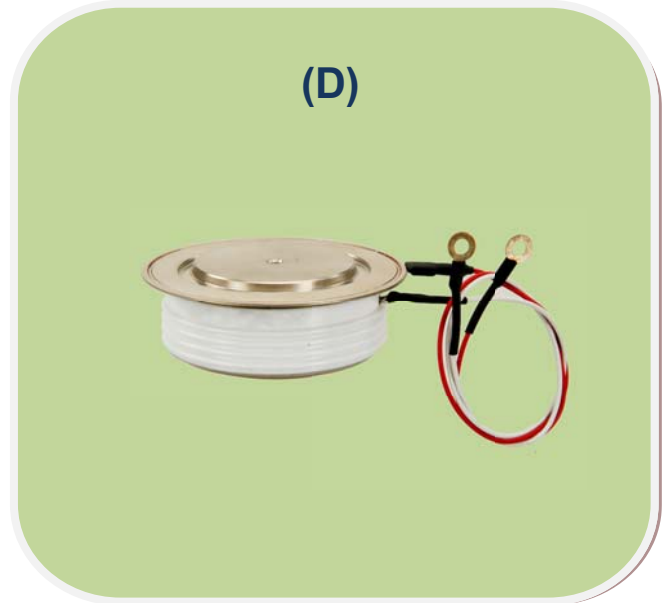
- Double Side Cooling
- High Surge Capability
- High Mean Current
- Fatigue Free

TYPICAL APPLICATIONS

- High Power Drives
- High Voltage Power Supplies
- DC Motor Control

TECHNICAL DATA

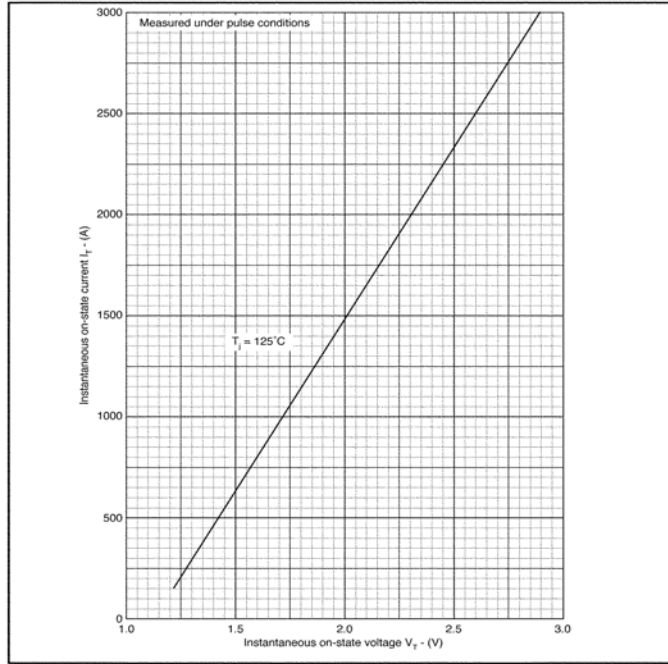
DEVICE TYPE	V_{DRM}/V_{RRM} (V)	V_{RSM} (V)
DCR1279SD44	4400	4500
DCR1279SD46	4600	4700
DCR1279SD48	4800	4900



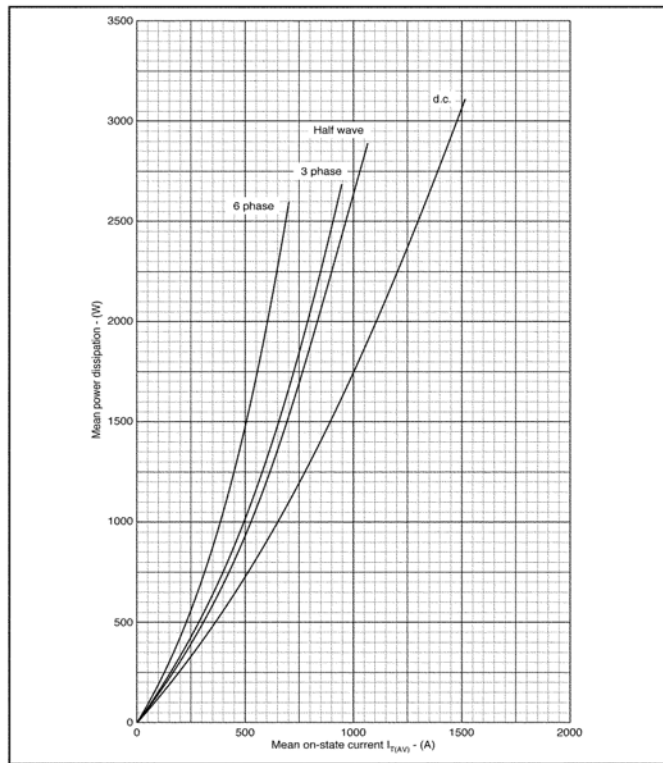
Symbol	Conditions	Values
$I_{T(AV)}$	Half wave resistive load; $T_c = 60\text{ }^\circ\text{C}$	1088A
I_{TSM}	$T_{vj} = 125\text{ }^\circ\text{C}$; 10 ms half sine, $V_R = 50\% V_{RRM}$	12 KA
	$T_{vj} = 125\text{ }^\circ\text{C}$; 10 ms half sine, $V_R = 0$	15 KA
I^2t	$T_{vj} = 125\text{ }^\circ\text{C}$, 10 ms half sine, $V_R = 50\% V_{RRM}$	720000 A ² s
	$T_{vj} = 125\text{ }^\circ\text{C}$; 10 ms half sine, $V_R = 0$	1120000 A ² s
I_{GT} V_{GT} dv/dt [di/dt] _{CR}	$T_{vj} = 25\text{ }^\circ\text{C}$; $V_{DRM} = 5V$	400 mA
	$T_{vj} = 25\text{ }^\circ\text{C}$; $V_{DRM} = 5V$	4.0 V
	$T_{vj} = 125\text{ }^\circ\text{C}$; Voltage = 67 % V_{DRM}	*200V/μs
	Repetitive 50 Hz	100 A/μs
V_T V_O R_O I_{RRM}/I_{DRM}	$T_{vj} = 25\text{ }^\circ\text{C}$; $I_T = 2900\text{ A}$	2.40 V max
	$T_{vj} = 125\text{ }^\circ\text{C}$	1.14 V
	$T_{vj} = 125\text{ }^\circ\text{C}$	0.587 mΩ
	$T_{vj} = 125\text{ }^\circ\text{C}$	150 mA
I_H I_L		500 mA
		1000 mA
$R_{th(j-c)}$ $R_{th(c-h)}$ T_{vj} T_{stg} Mounting Force Package Outline	dc	0.020 °C/W
		0.004 °C/W
		+125 °C
		-40....+125 °C
		20-22 KN
		D

* Higher dv/dt selection available.

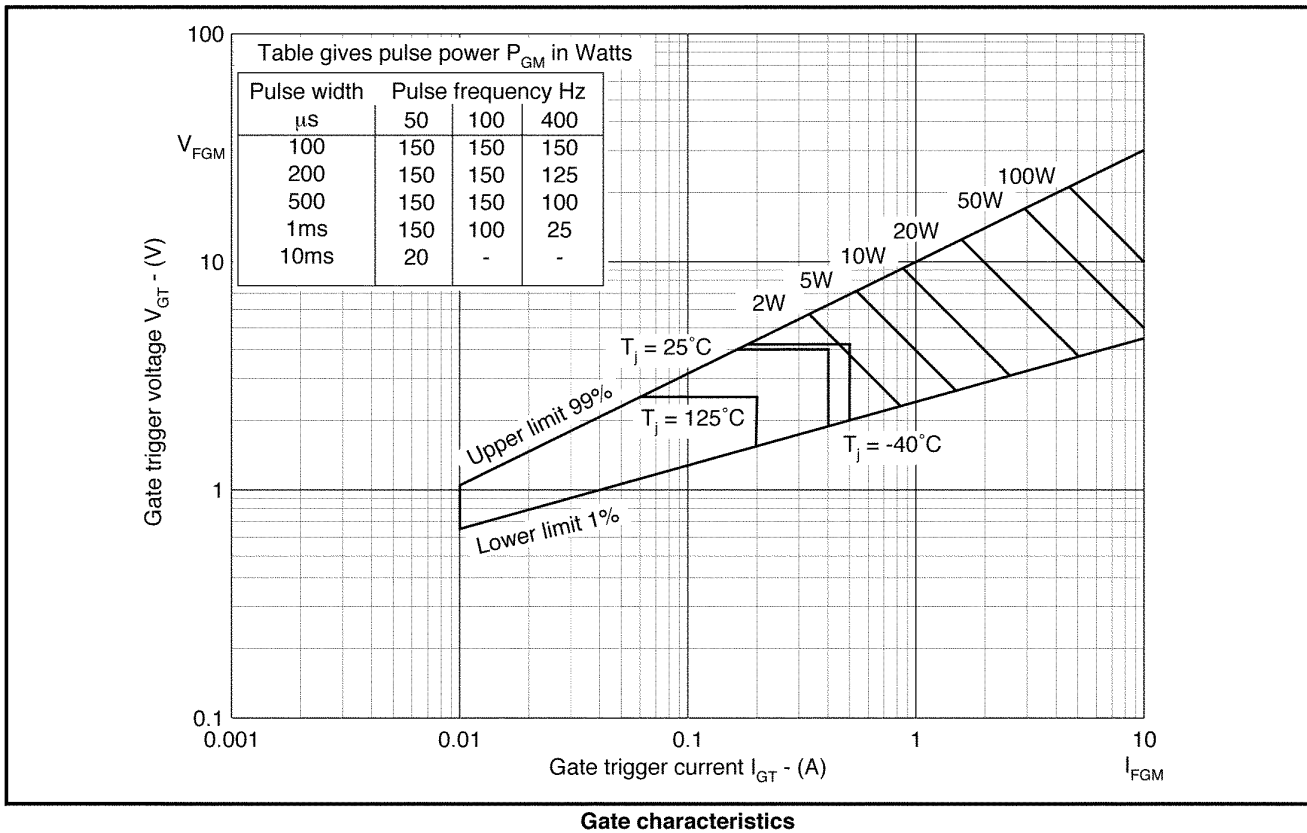
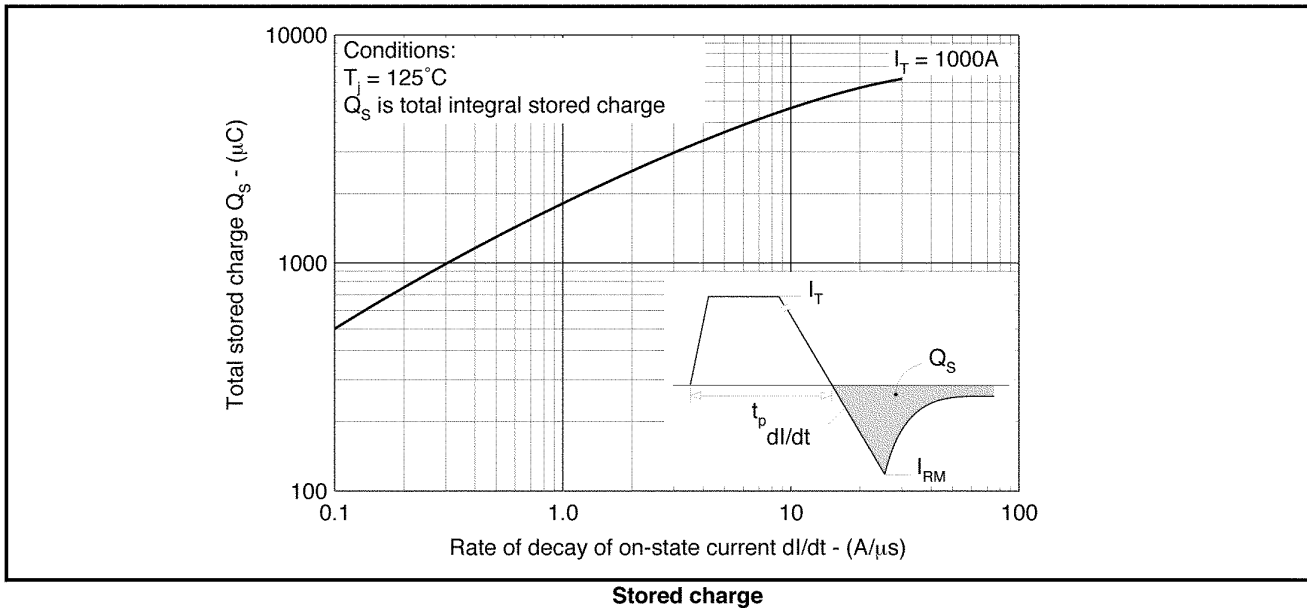
CURVES

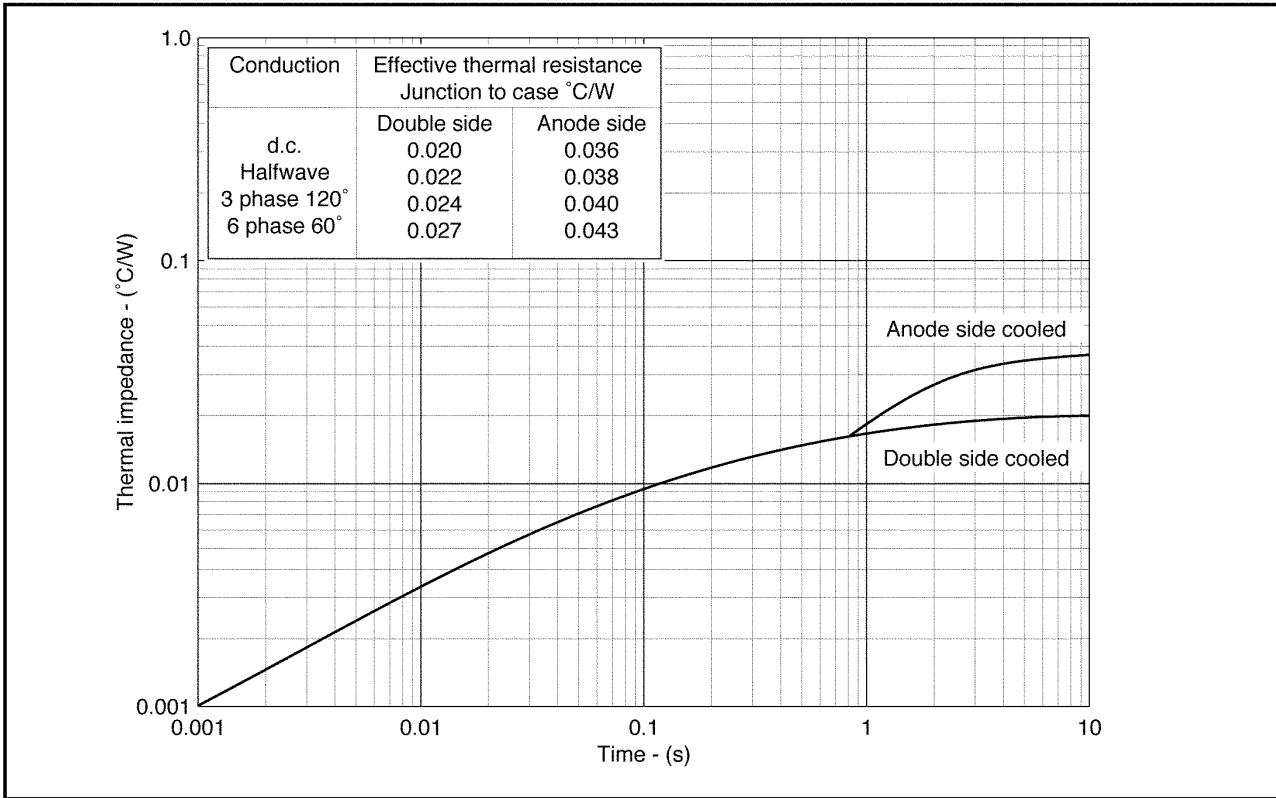


Maximum (limit) on-state characteristics

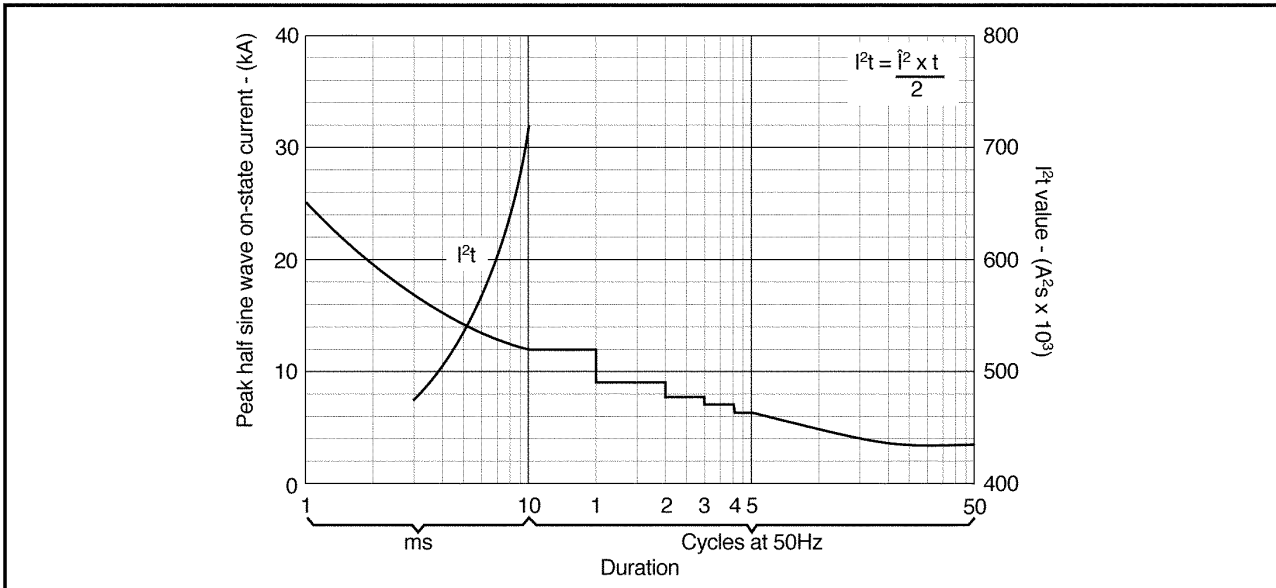


Dissipation curves



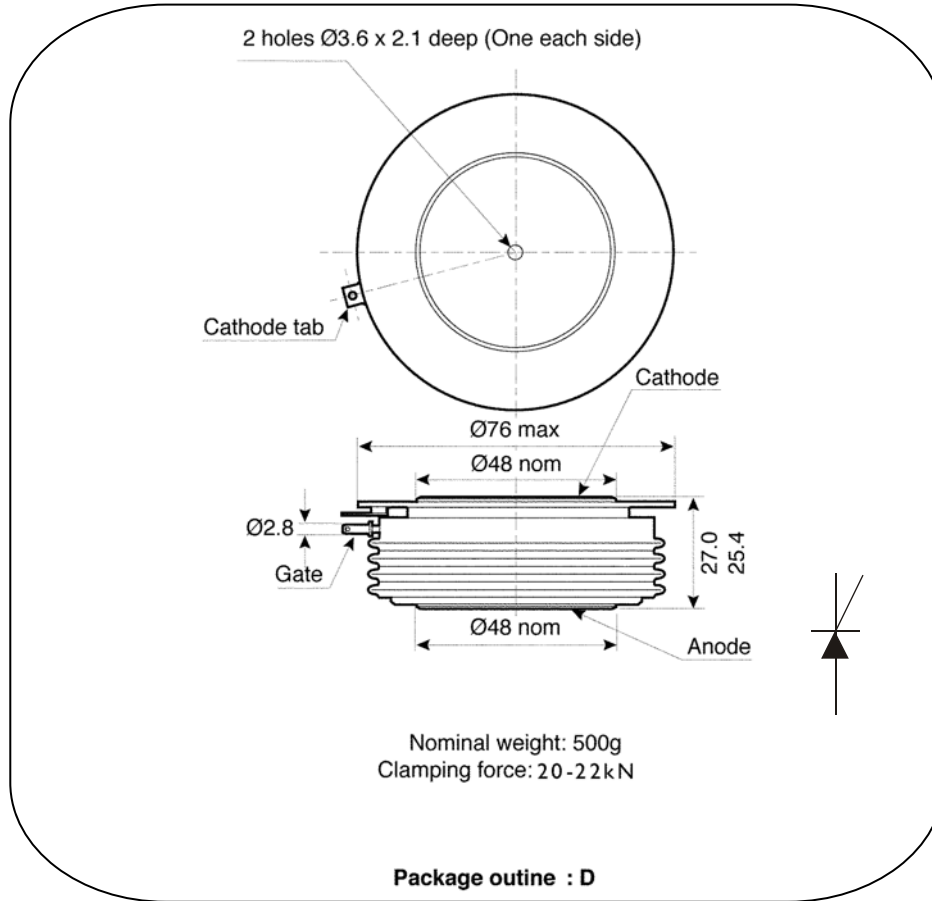


Maximum (limit) transient thermal impedance - junction to case



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

PACKAGE OUTLINE



All dimensions are in mm.

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