

FEATURES

- Heat transfer through ceramic.
- Hard solder joints for high reliability
- Isolated base mounting

TYPICAL APPLICATIONS

- DC motor control
- AC motor soft starters
- Temperature control for oven
- Chemical processes and professional light dimming

TECHNICAL DATA



DEVICE TYPE	V _{RRM} (V)	V _{RSM} (V)
IRKT330/12, IRKH330/12	1200	1300
IRKT330/16, IRKH330/16	1600	1700
IRKT330/20, IRKH330/20	2000	2100
IRKT330/22, IRKH330/22	2200	2300

SYMBOL	CONDITIONS	VALUES
I _{TAV} I _{RMS}	Sin. 180; T _{case} =85 °C T _a =45°C	305 amp. 585 amp.
I _{TSM} I ² _t	T _{vj} =25°C; 10 ms T _{vj} =25°C	9500 amp. 451000 A ² S
I _{RRM} / I _{DRM}	T _{vj} =25°C T _{vj} =125°C	20 mA 85 mA
V _T V ₀ R ₀	T _{vj} =25°C (I _T =750 Amp.); max T _{vj} =125°C T _{vj} =125°C	1.40 V 0.8 V 0.6 mΩ
I _{GT} V _{GT} I _H I _L	T _{vj} =25 °C T _{vj} =25 °C T _{vj} =25 °C Typical value T _{vj} =25 °C Typical value	200 mA 3.0 V 500 mA 2000 mA
R _{th(j-c)} R _{th(c-h)} T _{vj} T _{stg}	Cont. } Sin. 180 } per thyristor/per module Sin. 120 } Per thyristor/per module	0.11/0.055 °C/W 0.116/0.058 °C/W 0.13/0.065 °C/W 0.04/0.02 °C/W -40...+ 130 °C -40...+ 130 °C
Mounting torque		5 Nm/Per bolt
Weight	Approx.	600 gm
V _(isol)	Ac 50 Hz rms 1 min	3000 volts
Package Outline		IR-3

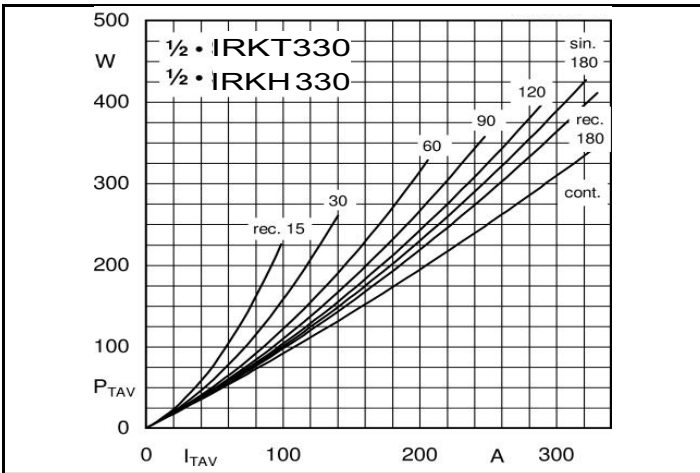


Fig. 1L Power dissipation per thyristor vs. on-state current

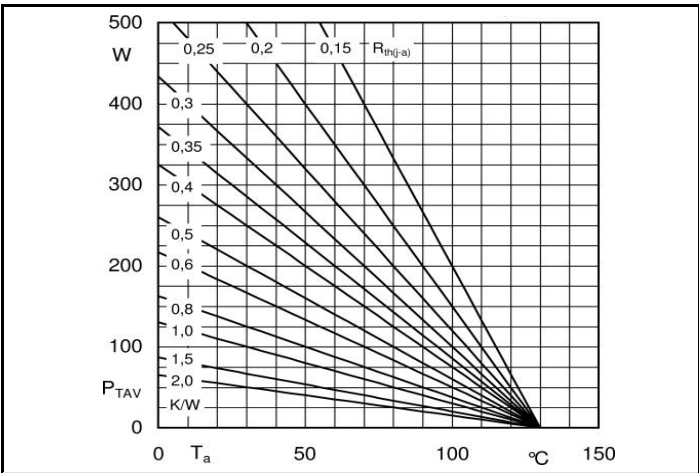


Fig. 1R Power dissipation per thyristor vs. ambient temp.

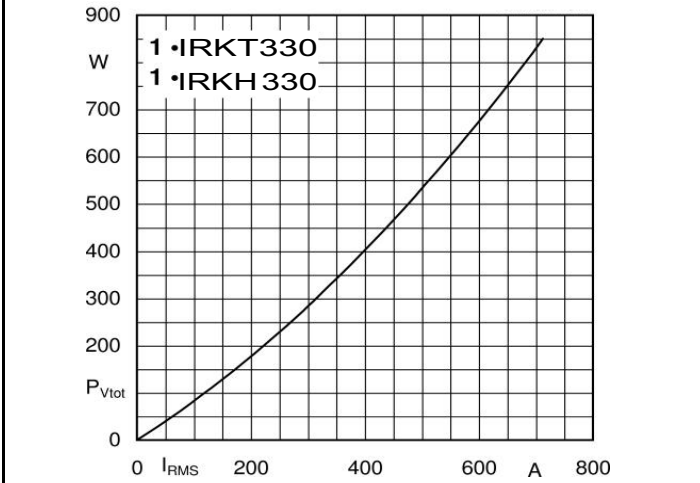


Fig. 2L Power dissipation per module vs. rms current

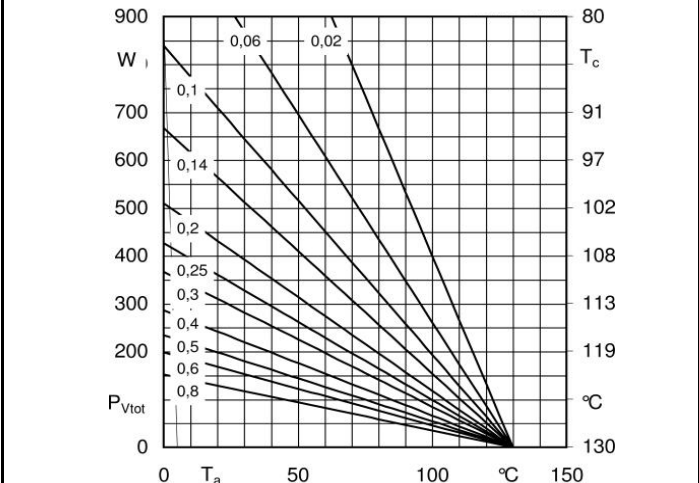


Fig. 2R Power dissipation per module vs. case temp.

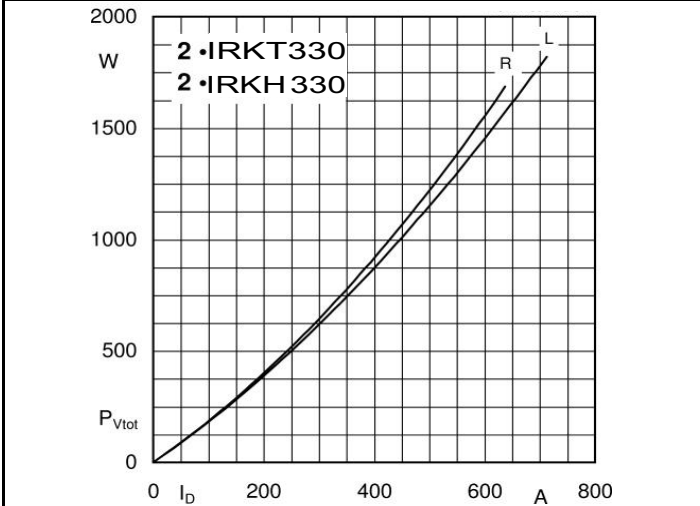


Fig. 3L Power dissipation of two modules vs. direct current

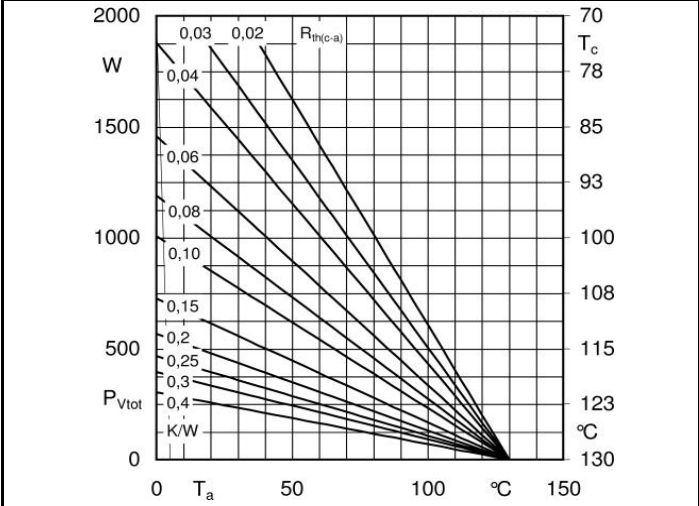


Fig. 3R Power dissipation of two modules vs. case temp.

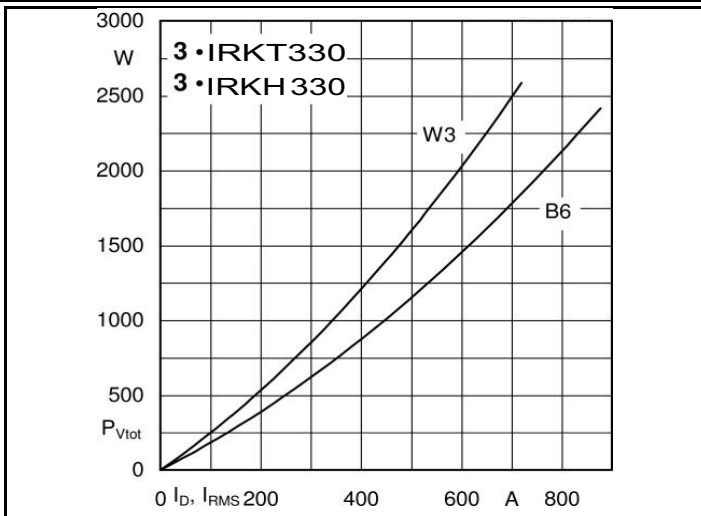


Fig. 4L Power dissipation of three modules vs. direct and rms current

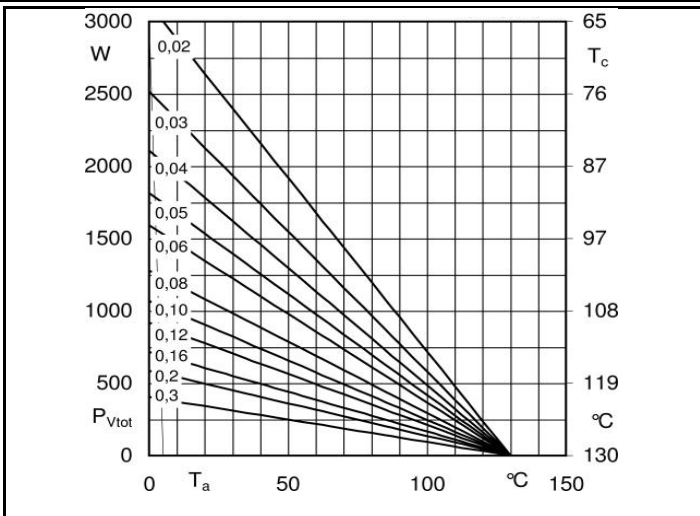


Fig. 4R Power dissipation of three modules vs. case temp.

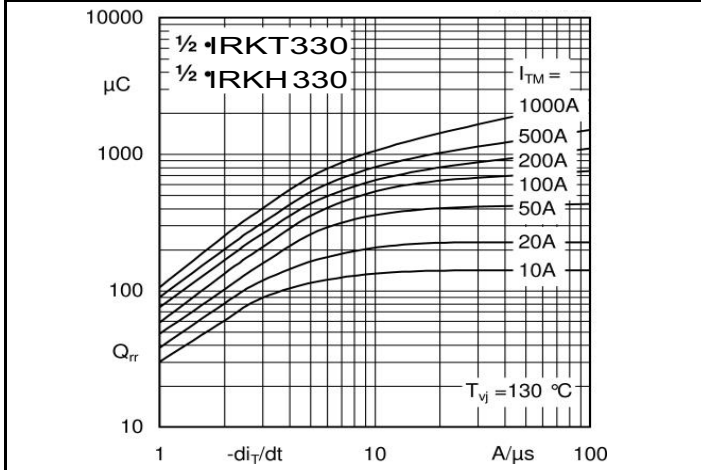


Fig. 5 Recovered charge vs. current decrease

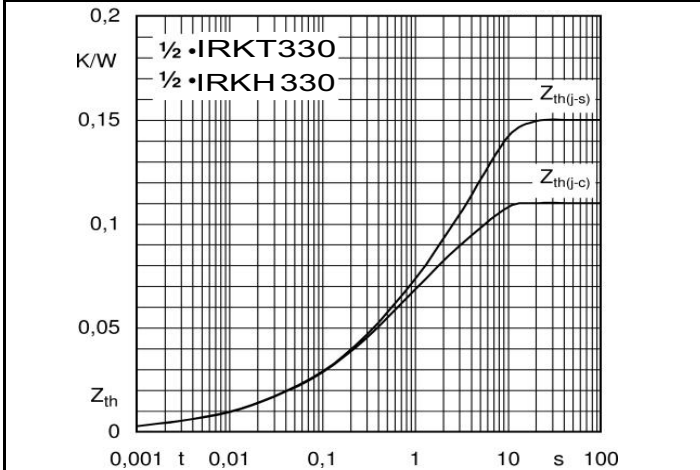


Fig. 6 Transient thermal impedance vs. time

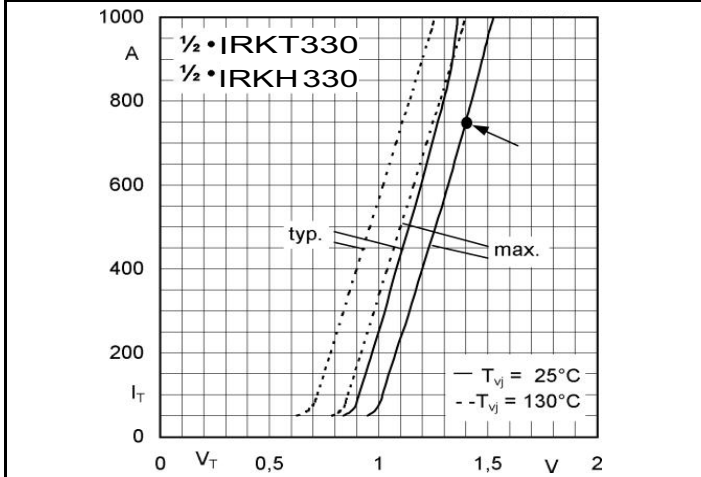


Fig. 7 On-state characteristics

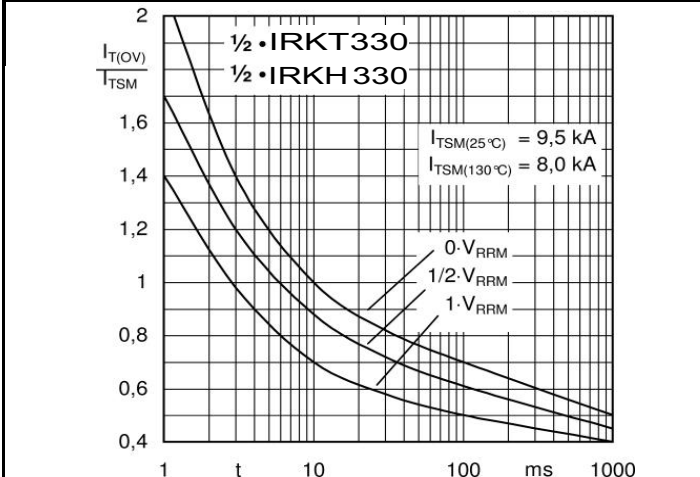
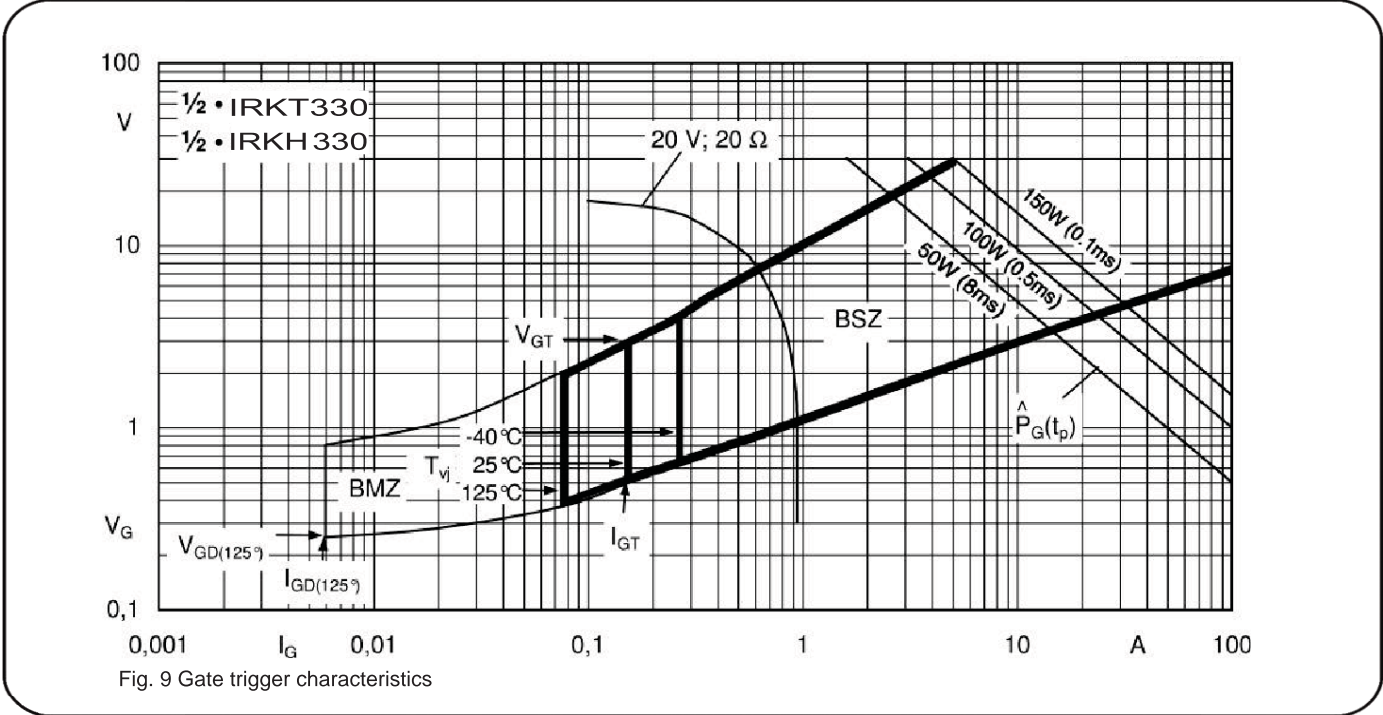
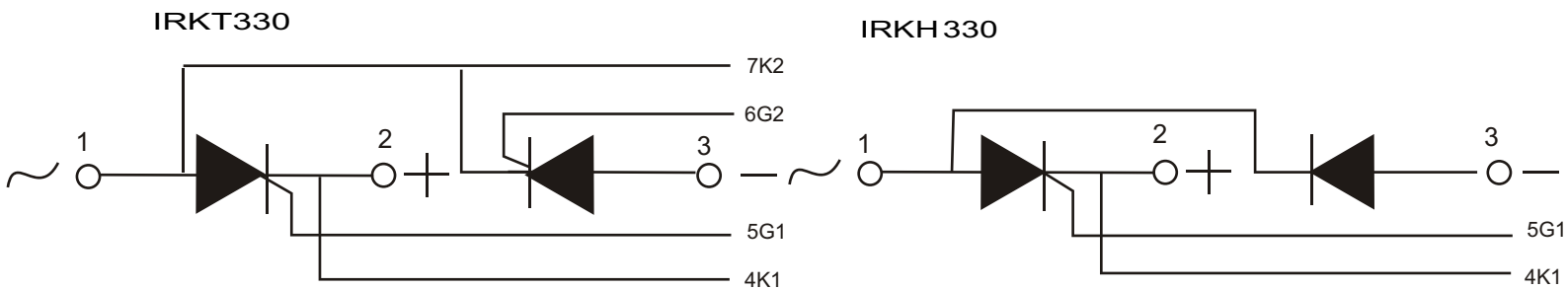


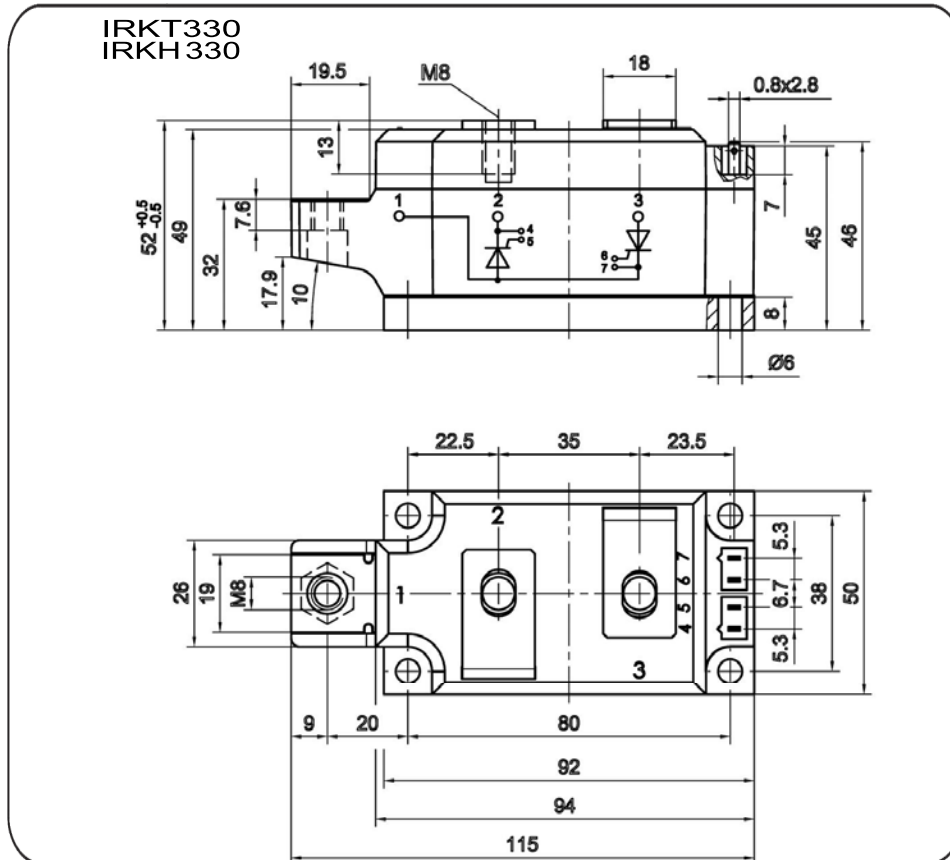
Fig. 8 Surge overload current vs. time



CIRCUIT DIAGRAM



PACKAGE OUTLINE



All dimension are in mm .

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