Ordering number : EN820D

SANYO No.820D

DRA8

Silicon Diffused Junction Type

8.0A Reverse Blocking Thyristor

Features

- Glass passivation for high reliability
- Peak OFF-state (reverse) voltage : −100 to −600V
- Average ON-state current : 8A
- TO-220 package
- Weight : 2g

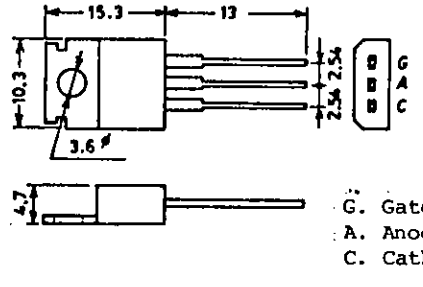
Absolute Maximum Ratings at Ta = 25°C

			DRA8B	DRA8C	DRA8E	DRA8G	unit
Repetitive Peak OFF-State Voltage	V_{DRM}		100	200	400	600	V
Non-Repetitive Peak Reverse Voltage	V_{RSM}		−150	−300	−500	−700	V
Repetitive Peak Reverse Voltage	V_{RRM}		−100	−200	−400	−600	V
Average ON-State Current	$I_{T(AV)}$	Tc = 83°C, single-phase half-wave	→	→	→	8	A
RMS ON-State Current	$I_{T(RMS)}$		→	→	→	12.6	A
Surge ON-State Current	I_{TSM}	Sine half-wave 1 cycle, 50Hz	→	→	→	120	A
Amperes Squared-Seconds	$\int i_T^2 \cdot dt$		→	→	→	70	A^2S
Peak Gate Power Dissipation	P_{GM}		→	→	→	5	W
Average Gate Power Dissipation	$P_{G(AV)}$		→	→	→	0.5	W
Peak Gate Forward Current	I_{FGM}		→	→	→	2	A
Peak Gate Forward Voltage	V_{FGM}		→	→	→	10	V
Peak Gate Reverse Voltage	V_{RGM}		→	→	→	5	V
Junction Temperature	Tj		→	→	→	125	°C
Storage Temperature	Tstg		→	→	−40 to +125		°C

Electrical Characteristics at Ta = 25°C

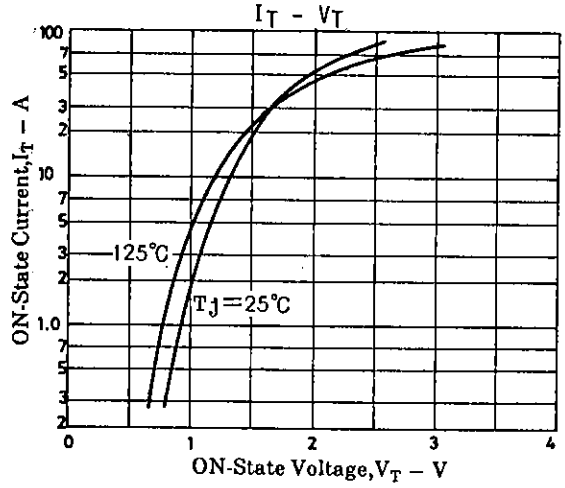
			min	typ	max	unit
Repetitive Peak OFF-State Current	I_{DRM}	Tj = 125°C, $V_D = V_{DRM}$			2	mA
Repetitive Peak Reverse Current	I_{RRM}	Tj = 125°C, $V_D = V_{RRM}$			2	mA
ON-State Voltage	V_T	I_T = 25A			1.6	V
Critical Rate of Rise of OFF-State Voltage	dv/dt	Tc = 125°C, $V_D = 2/3V_{DRM}$	30			V/μs
Holding Current	I_H	$R_L = 100\Omega$			60	mA
Gate Trigger Current	I_{GT}	V_D = 6V, $R_L = 10\Omega$			40	mA
Gate Trigger Voltage	V_{GT}	V_D = 6V, $R_L = 10\Omega$			1.5	V
Gate Nontrigger Voltage	V_{GD}	Ta = 125°C, $V_D = 2/3V_{DRM}$	0.2			V
Thermal Resistance	Rth(j−c)				3	°C/W

Package Dimensions 1104
(unit: mm)

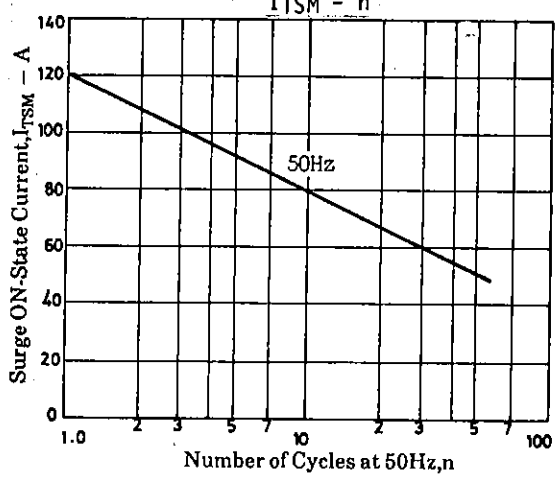


G. Gate
A. Anode
C. Cathode

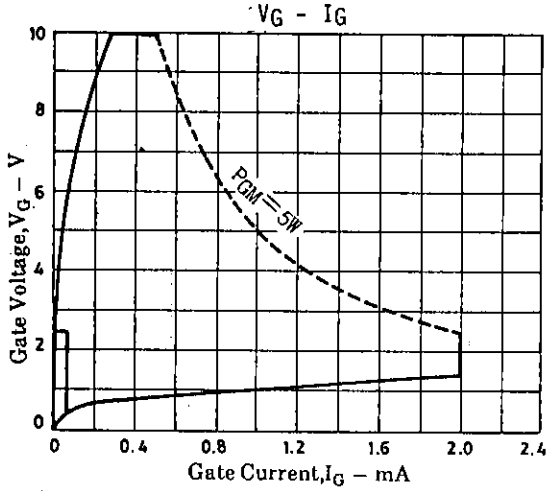
I_T - V_T



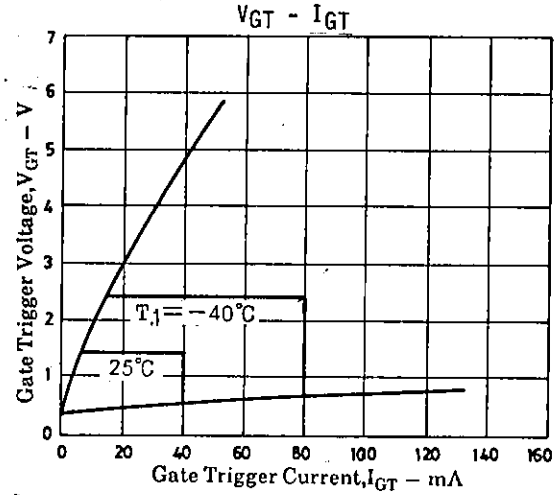
I_{TSM} - n



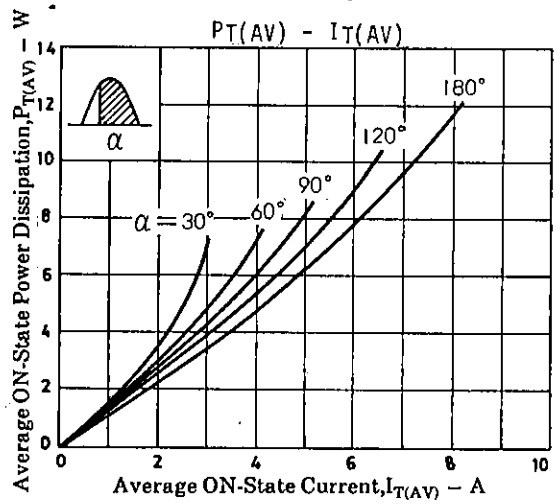
V_G - I_G



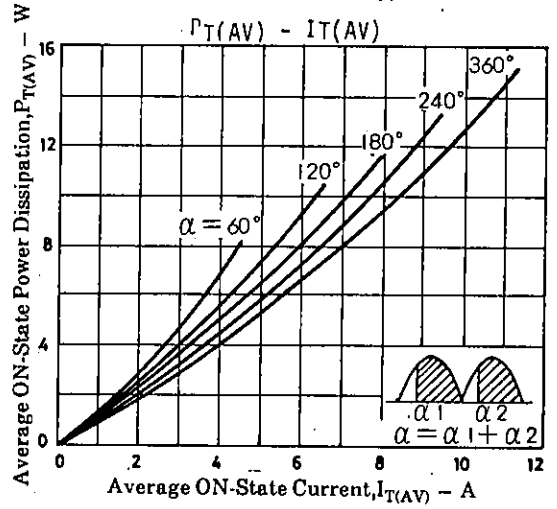
V_{GT} - I_{GT}



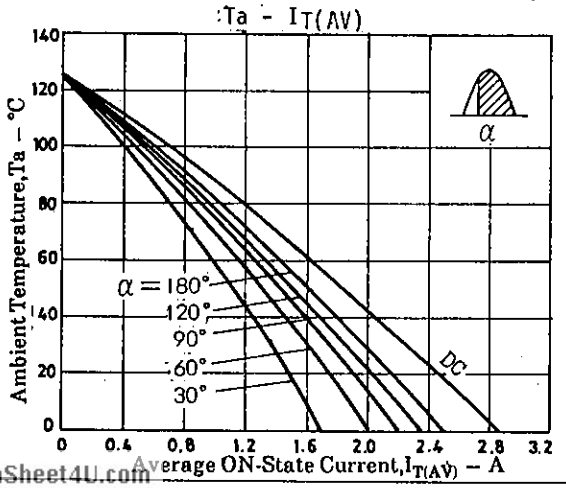
$P_{T(AV)}$ - $I_{T(AV)}$



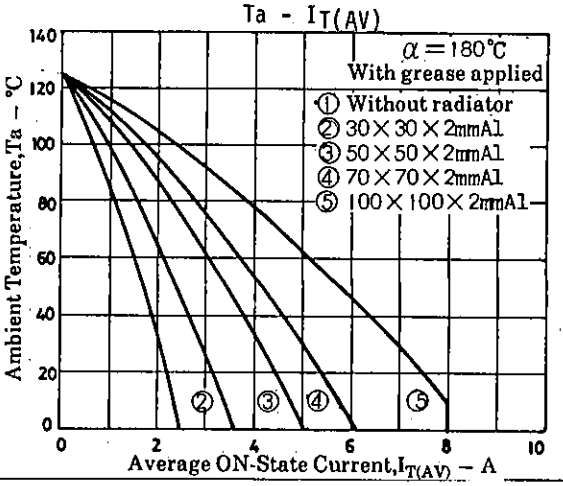
$P_{T(AV)}$ - $I_{T(AV)}$

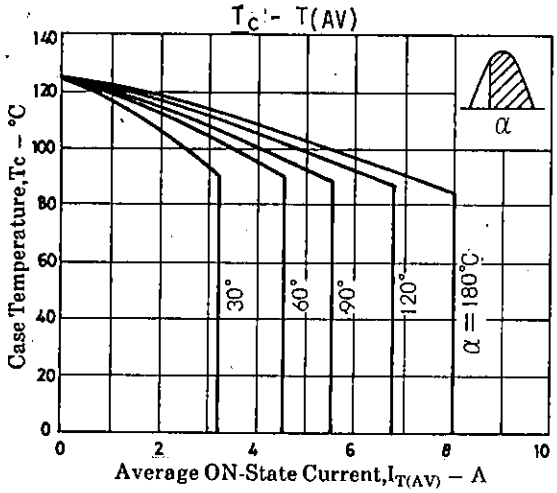


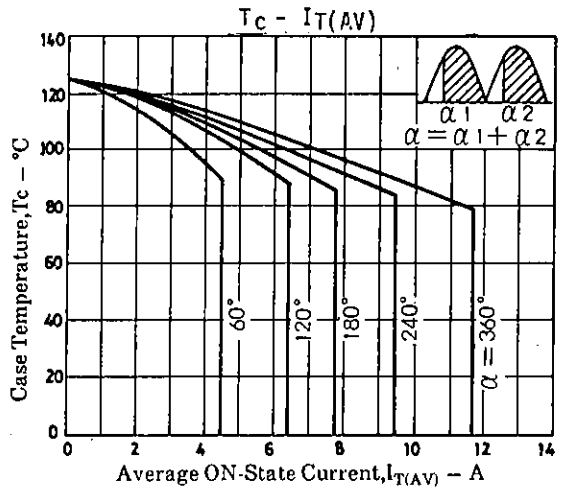
Ta - $I_{T(AV)}$

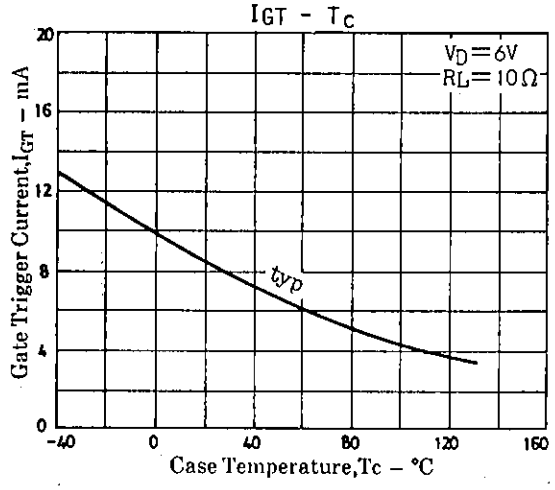


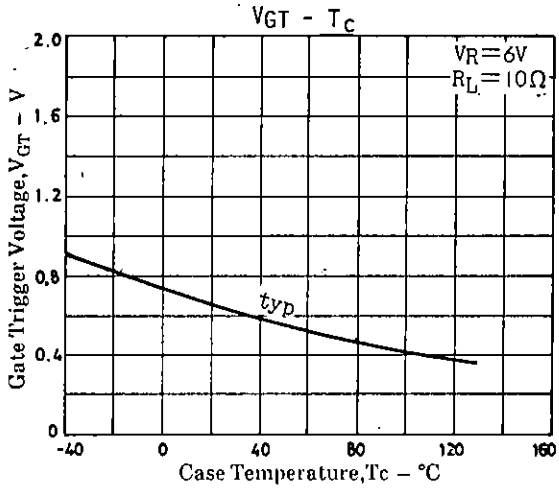
Ta - $I_{T(AV)}$

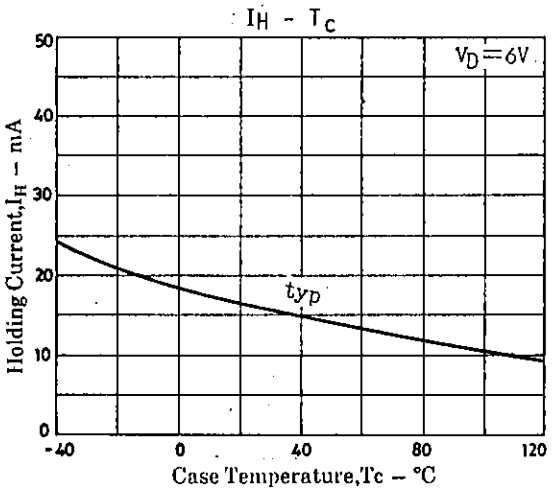


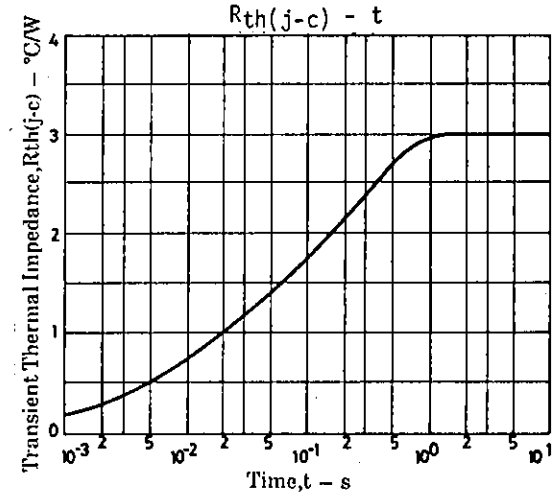












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