

Silicon Diffused Junction Type

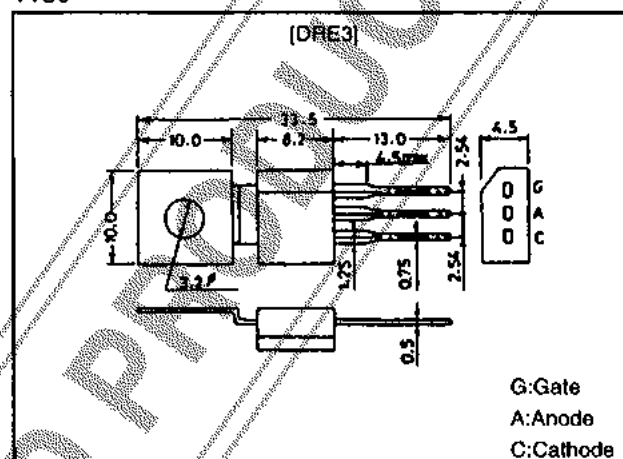
Features

- Glass passivation for high reliability.
- Peak OFF-state (reverse) voltage : 100 to 600V.
- Average ON-state current : 3A.
- TO-202 package.

Package Dimensions

unit:mm

1150



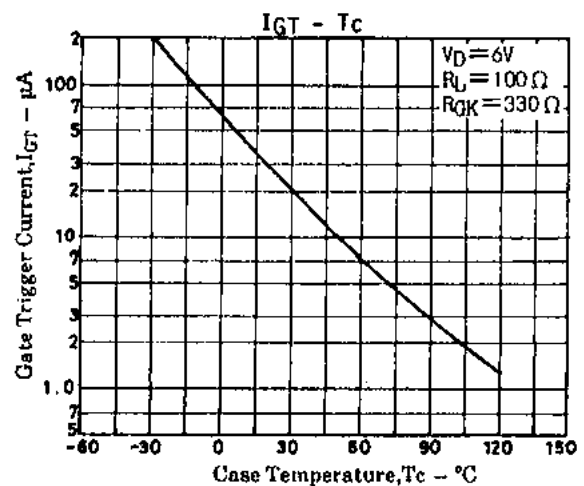
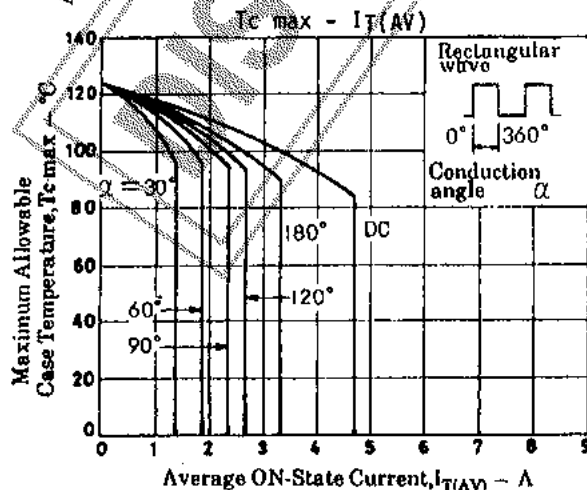
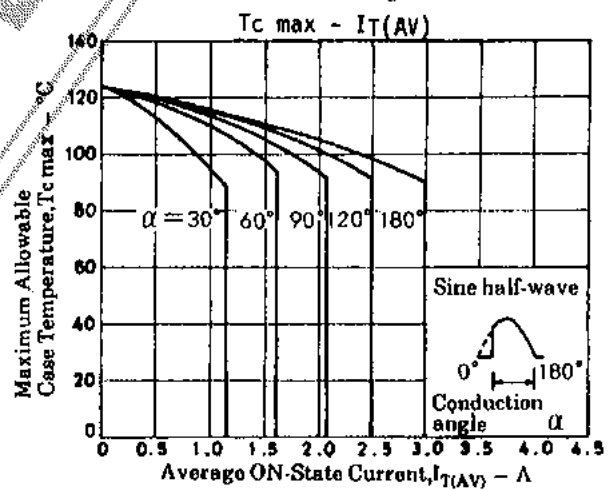
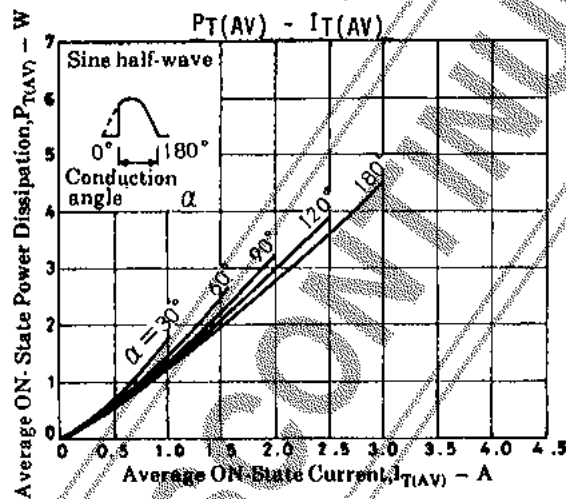
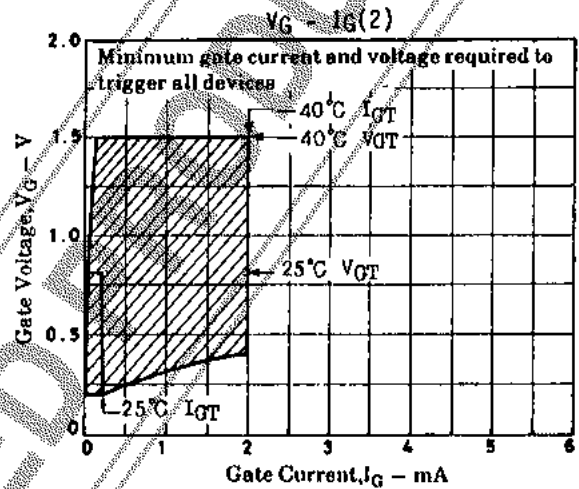
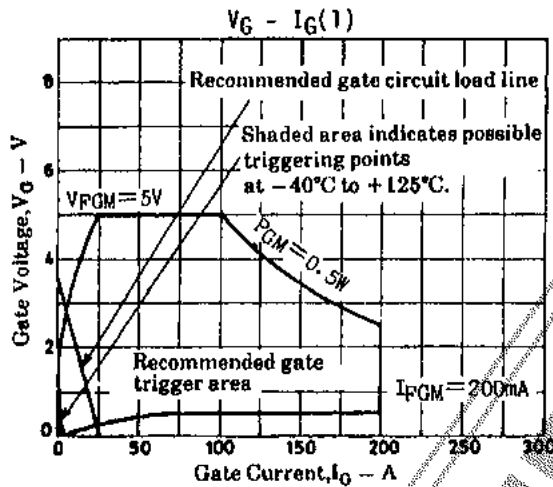
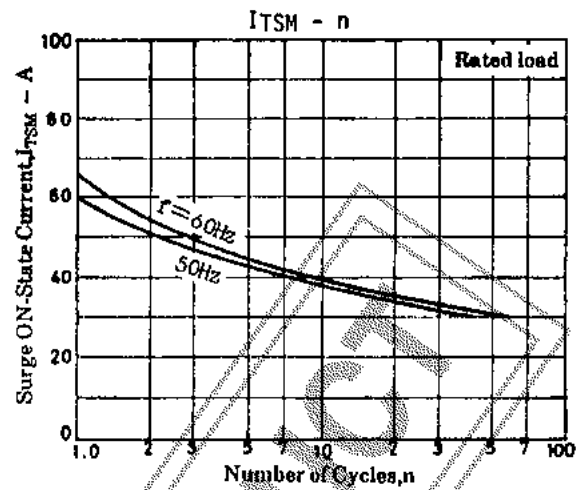
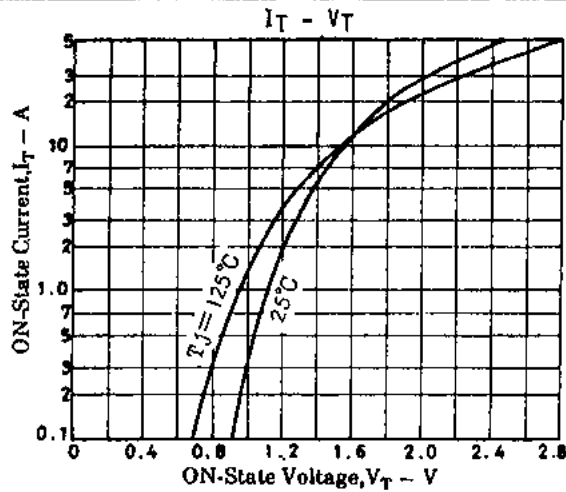
Specifications

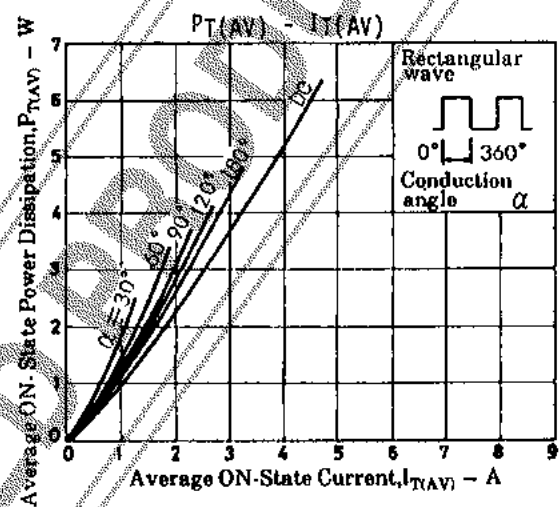
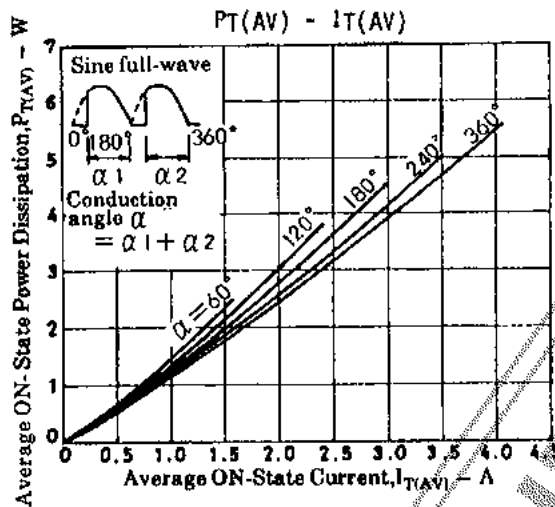
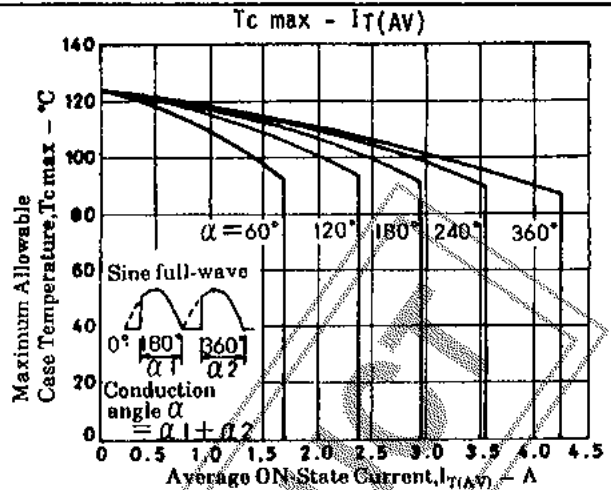
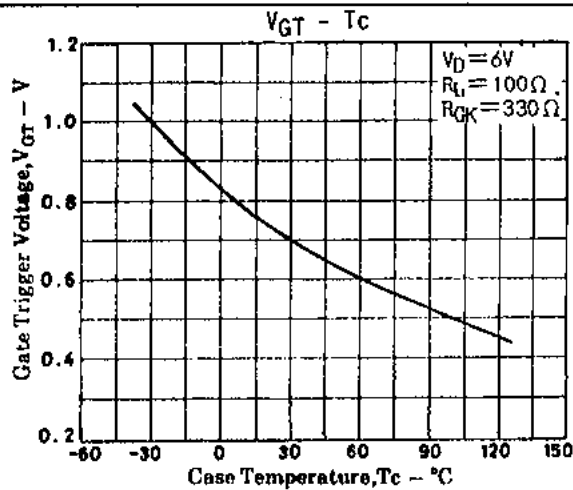
Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	DRE3B	DRE3C	DRE3E	DRE3G	Unit
Repetitive Peak OFF-State Voltage	V_{DRM}	$R_{GK}=330\Omega$	100	200	400	600	V
Non-Repetitive Peak Reverse Voltage	V_{RSM}	$R_{GK}=330\Omega$	150	300	500	720	V
Repetitive Peak Reverse Voltage	V_{RRM}	$R_{GK}=330\Omega$	100	200	400	600	V
Average ON-State Current	$I_T(AV)$	$T_a=90^{\circ}C$, single phase half-wave	→	→	→	3	A
RMS ON-State Current	$I_T(RMS)$		→	→	→	4.7	A
Surge ON-State Current	I_{TSM}	Sine half-wave, 1 cycle, 50Hz	→	→	→	60	A
Ampere Squared-Seconds	I^2t, dt	$t_{rms} \leq 10ms$	→	→	→	20	A ² S
Peak Gate Power Dissipation	P_{GM}	$f \geq 50Hz$, duty $\leq 10\%$	→	→	→	0.5	W
Average Gate Power Dissipation	$P_{G(AV)}$		→	→	→	0.05	W
Peak Gate Forward Current	I_{FGM}	$f \geq 50Hz$, duty $\leq 10\%$	→	→	→	0.2	A
Peak Gate Reverse Voltage	V_{RGM}		→	→	→	5	V
Junction Temperature	T_j		→	→	→	125	$^{\circ}C$
Storage Temperature	T_{stg}		→	→	→	-40 to +125	$^{\circ}C$
Weight			→	→	→	1.5	g

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Repellive Peak OFF-State Current	I_{DRM}	$T_J = 125^{\circ}\text{C}$, $V_D = V_{DRM}$, $R_{GK} = 330\Omega$			2	mA
Repellive Peak Reverse Current	I_{RRM}	$T_J = 125^{\circ}\text{C}$, $V_D = V_{RRM}$, $R_{GK} = 330\Omega$			2	mA
Peak ON-State Voltage	V_{TM}	$I_{TM} = 12\text{A}$			1.6	V
Critical Rate of Rise of OFF-State Voltage	dv/dt	$T_J = 75^{\circ}\text{C}$, $V_D = 2/3V_{DRM}$, $R_{GK} = 330\Omega$		50		V/ μs
Holding Current	I_H	$R_L = 100\Omega$, $R_{GK} = 330\Omega$		1		mA
Gate Trigger Current	I_{GT}	$V_D = 6\text{V}$, $R_L = 100\Omega$, $R_{GK} = 330\Omega$			200	μA
Gate Trigger Voltage	V_{GT}	$V_D = 6\text{V}$, $R_L = 100\Omega$, $R_{GK} = 330\Omega$			0.8	V
Gate Nontrigger Voltage	V_{GD}	$T_a = 125^{\circ}\text{C}$, $V_D = 2/3V_{DRM}$, $R_{GK} = 330\Omega$	0.2			V
Thermal Resistance	$R_{th}(j-c)$				6.0	$^{\circ}\text{C/W}$





■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of May, 1998. Specifications and information herein are subject to change without notice.