

SANYO**DRD3**

Silicon Diffused Junction Type

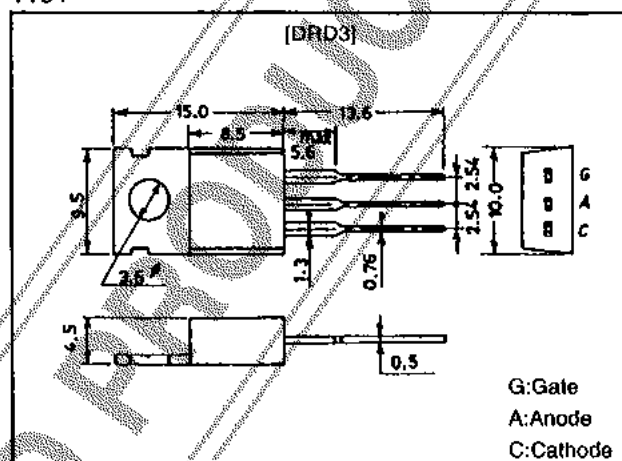
3.0A Reverse Blocking Thyristor**Features**

- Glass passivation for high reliability.
- Peak OFF-state (reverse) voltage : 100 to 600V.
- Average ON-state current : 3A.
- TO-220 package.

Package Dimensions

unit:mm

1151

**Specifications**Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	DRD3B	DRD3C	DRD3E	DRD3G	Unit
Repetitive Peak OFF-State Voltage	V_{DRM}	$R_{GK}=1k\Omega$	100	200	400	600	V
Non-Repelitive Peak Reverse Voltage	V_{RRM}	$R_{GK}=1k\Omega$	150	300	500	720	V
Repetitive Peak Reverse Voltage	V_{RRM}	$R_{GK}=1k\Omega$	100	200	400	600	V
Average ON-State Current	$I_T(AV)$	$T_a=30^\circ\text{C}$, single phase half-wave	→	→	→	3	A
RMS ON-State Current	$I_T(RMS)$		→	→	→	1.5	A
Surge ON-State Current	I_{TSM}	Sine half-wave, 1 cycle, 50Hz	→	→	→	60	A
Ampere Squared-Seconds	J_T	1ms ≤ t ≤ 10ms	→	→	→	18	A ² S
Peak Gate Power Dissipation	P_{GM}	f ≥ 50Hz, duty ≤ 10%	→	→	→	5	W
Average Gate Power Dissipation	$P_{G(AV)}$		→	→	→	0.5	W
Peak Gate Forward Current	I_{FGM}	f ≥ 50Hz, duty ≤ 10%	→	→	→	3	A
Peak Gate Reverse Voltage	V_{RGM}		→	→	→	5	V
Junction Temperature	T_J		→	→	→	110	°C
Storage Temperature	T_{stg}		→	→	→	-40 to +110	°C
Weight			→	→	→	2	g

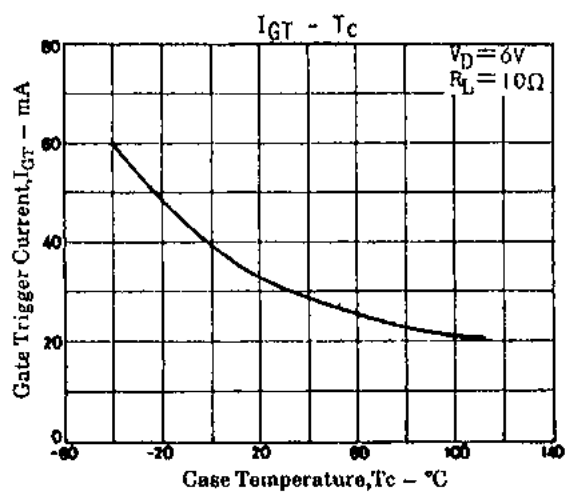
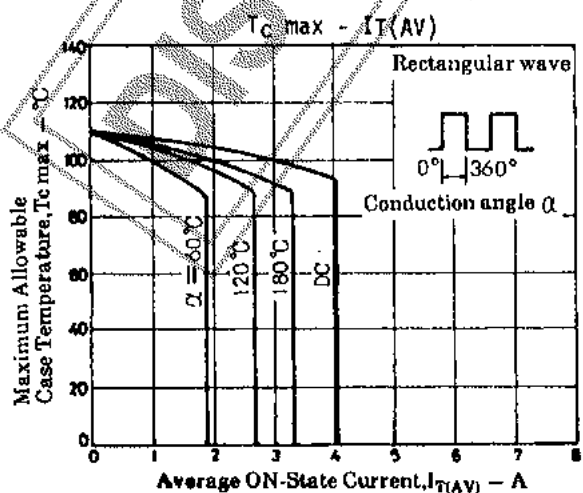
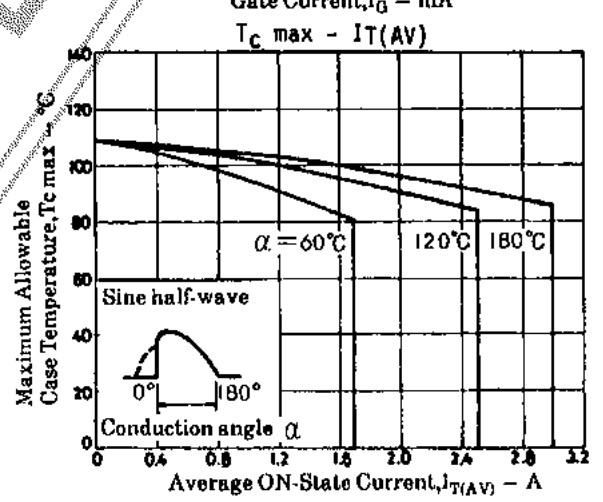
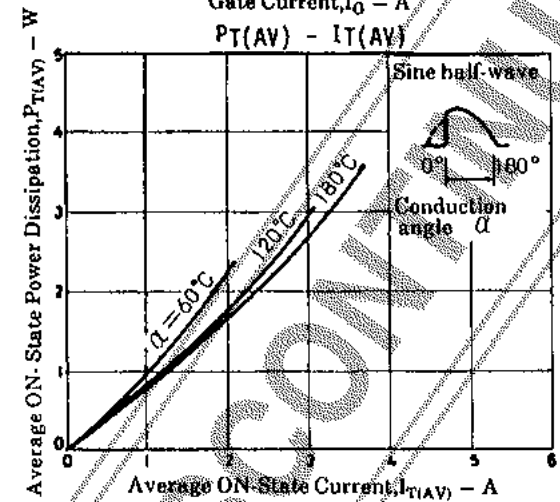
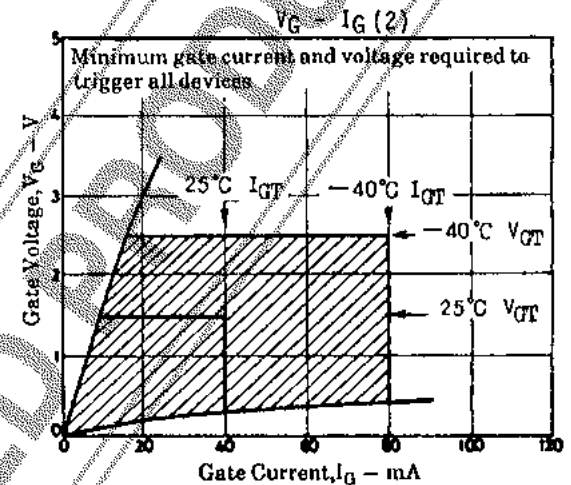
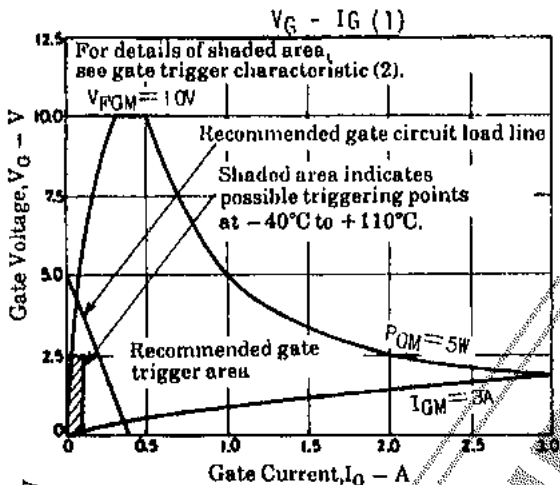
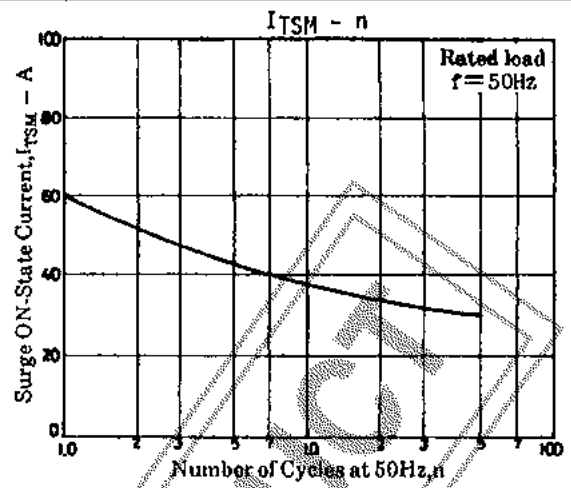
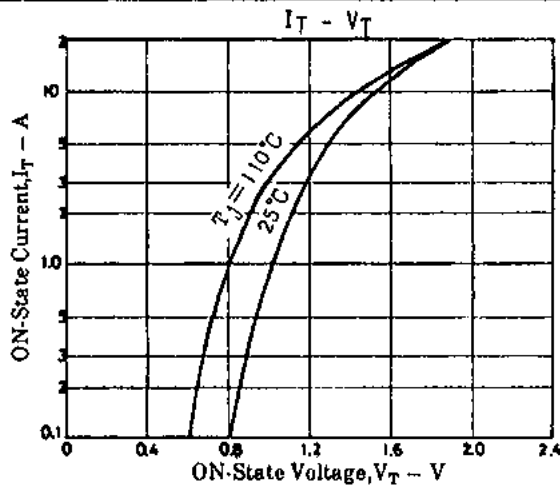
Electrical Characteristics at $T_a = 25^\circ\text{C}$

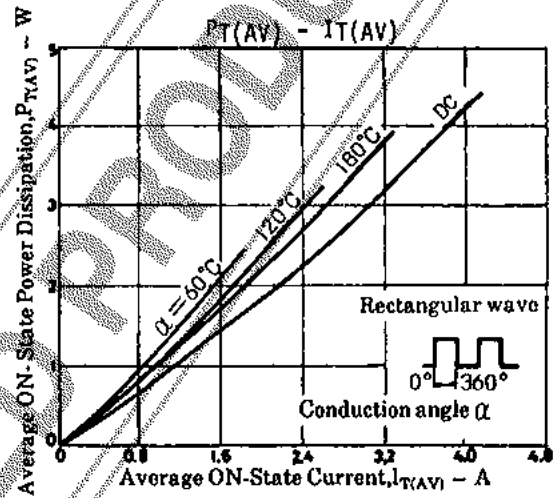
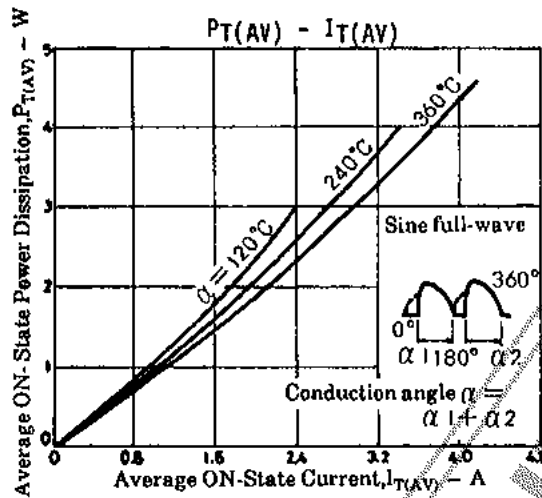
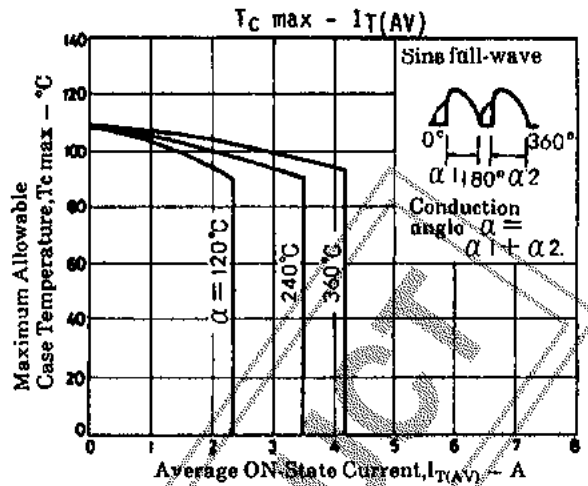
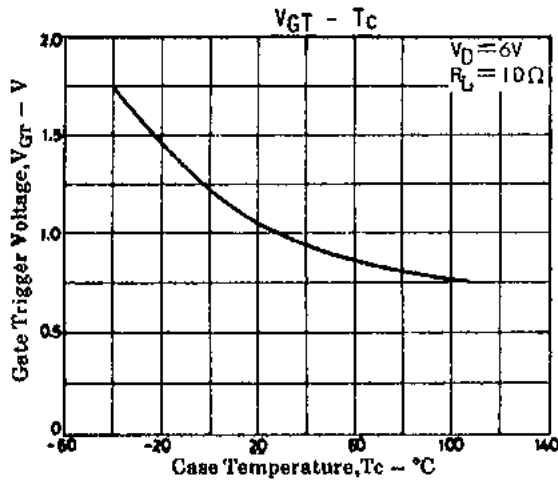
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Repetitive Peak OFF-State Current	I_{DRM}	$T_J=110^\circ\text{C}$, $V_D=V_{DRM}$, $R_{GK}=1k\Omega$			0.5	mA
Repetitive Peak Reverse Current	I_{RRM}	$T_J=110^\circ\text{C}$, $V_R=V_{RRM}$, $R_{GK}=1k\Omega$			0.5	mA
Peak ON-State Voltage	V_{TM}	$I_{TM}=12\text{A}$			1.6	V
Critical Rate of Rise of OFF-State Voltage	dv/dt	$T_J=110^\circ\text{C}$, $V_D=V_{DRM}$, $R_{GK}=1k\Omega$	100			V/s
Holding Current	I_H	$R_L=100\Omega$, $R_{GK}=1k\Omega$		60		mA
Gate Trigger Current	I_{GT}	$V_D=6\text{V}$, $R_L=100\Omega$, $R_{GK}=1k\Omega$			15	mA
Gate Trigger Voltage	V_{GT}	$V_D=6\text{V}$, $R_L=100\Omega$, $R_{GK}=1k\Omega$			1.5	V
Gate Nontrigger Voltage	V_{GD}	$T_a=110^\circ\text{C}$, $V_D=V_{DRM}$, $R_{GK}=1k\Omega$	0.2			V
Thermal Resistance	$R_{th(j-c)}$				3.2	°C/W

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53098HA (KT)/3139MO, TS No.1873-1/3





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