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2N2322 thru 2N2326 (SILICON)

All-diffused PNPN thyristors designed for gating operation in mA/μA signal or detection circuits.

(TO-5)

MAXIMUM RATINGS* (T_J = 125°C unless otherwise noted, R_{GK} = 1000 ohms)

Rating	Symbol	Value	Unit
Peak Reverse Blocking Voltage (Note 1) 2N2322	$V_{RSM(rep)}$	25	Volts
2N2323		50	
2N2324		100	
2N2325		150	
2N2326		200	
Non-Repetitive Peak Reverse Blocking Voltage (t < 5.0 ms) 2N2322	$V_{RSM(non-rep)}$	40	Volts
2N2323		75	
2N2324		150	
2N2325		225	
2N2326		300	
Forward Current RMS (All Conduction Angles)	$I_{T(RMS)}$	1.6	Amp
Peak Surge Current (One-Half Cycle, 60 Hz) No Repetition Until Thermal Equilibrium is Restored	I_{TSM}	15	Amp
Peak Gate Power — Forward	P_{GM}	0.1	Watt
Average Gate Power — Forward	$P_{G(AV)}$	0.01	Watt
Peak Gate Current — Forward	I_{GM}	0.1	Amp
Peak Gate Voltage — Forward	V_{GFM}	6.0	Volts
Reverse	V_{GRM}	6.0	
Operating Junction Temperature Range	T_J	-65 to +125	°C
Storage Temperature Range	T_{stg}	-65 to +150	°C
Lead Solder Temperature (> 1/16" from case, 10 sec. max)	-	+230	°C

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted, R_{GK} = 1000 ohms)

Characteristic	Symbol	Min	Max	Unit
Peak Forward Blocking Voltage (Note 1) 2N2322 2N2323 2N2324 2N2325 2N2326	V_{DRM}	 25* 50* 100* 150* 200*	 - - - - -	Volts
Peak Reverse Blocking Current (Rated V_{DRM}, T_J = 125°C)	I_{RRM}	-	100*	μA
Peak Forward Blocking Current (Rated V_{DRM}, T_J = 125°C)	I_{DRM}	-	100*	μA
Forward "On" Voltage (I_T = 1.0 A Peak) (I_T = 3.14 A Peak, T_C = 85°C)	V_T	- -	1.5 2.0*	Volts
Gate Trigger Current (Note 2) (Anode Voltage = 6.0 Vdc, R_L = 100 ohms) (Anode Voltage = 6.0 Vdc, R_L = 100 ohms, T_C = -65°C)	I_{GT}	- -	200 350*	μA
Gate Trigger Voltage (Anode Voltage = 6.0 V, R_L = 100 ohms) (Anode Voltage = 6.0 V, R_L = 100 ohms, T_C = -65°C) (V_{DRM} = Rated, R_L = 100 ohms, T_J = 125°C)	V_{GT}	- - 0.1*	0.8 1.0* -	Volts
Holding Current (Anode Voltage = 6.0 V) (Anode Voltage = 6.0 V, T_C = -65°C) (Anode Voltage = 6.0 V, T_C = 125°C)	I_H	- - 0.15*	2.0 3.0* -	mA
Turn-On Time	t_{gt}	Circuit dependent, consult manufacturer		
Turn-Off Time	t_q			

* JEDEC Registered Values

Notes: 1. V_{RSM} and V_{DRM} can be applied for all types on a continuous dc basis without incurring damage.

2. R_{GK} current is not included in measurement.

Thyristor devices shall not be tested with a constant current source for forward or reverse blocking capability such that the voltage applied exceeds the rated blocking voltage.

Thyristor devices shall not have a positive bias applied to the gate concurrently with a negative potential applied to the anode.

FIGURE 1 – CASE TEMPERATURE vs CURRENT

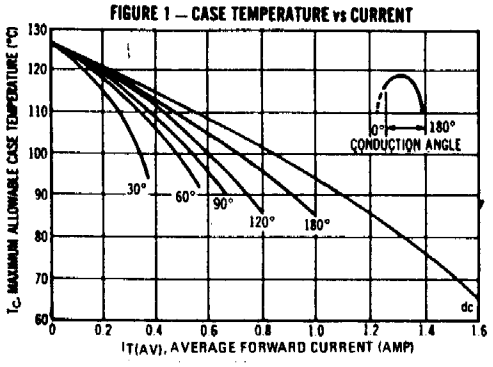

FIGURE 2 – AMBIENT TEMPERATURE vs CURRENT