New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

S2600B, S2600D, S2600M, S2600N

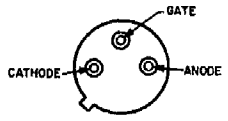
High Voltage, Medium Current Silicon Controlled Rectifiers

For Power Switching, Power Control and Ignition Applications

Features:

- *800V, 125 Deg. C T_J Operating*
- *High dv/dt and di/dt Capability*
- *Low Switching Losses*
- *High Pulse Current Capability*
- *Low Forward and Reverse Leakage*
- *Sipos Oxide Glass Multilayer Passivation System*
- *Advanced Unisurface Construction*
- *Precise Ion Implanted Diffusion Source*

TERMINAL DESIGNATIONS



Low-Profile TO-205

MAXIMUM RATINGS, *Absolute-Maximum Values:*

	S2600B	S2600D	S2600M	S2600N	
VDRM	200	400	600	800	V
VRRM	200	400	600	800	V
IT (RMS) (T_C = 65°C)	7				A
IT (av) (T_C = 65°C, θ = 180 Deg.)	4.5				A
ITSM (for 1 full cycle)	100				A
di/dt	200				A/μs
I^2T (at 8.3 ms)	40				A^2s
(at 1.5 ms)	30				A^2s
PGM (for 10μs max.)	15				W
PG (av) (Averaging time 10ms max.)	0.5				W
T Storage	-65 to 150				°C
TJ	-65 to 125				°C

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

ELECTRICAL CHARACTERISTICS, at Case Temperature (T_C) = 25° C Unless Otherwise Specified

CHARACTERISTIC	SYMBOL	LIMITS			UNITS
		S2600 FAMILY			
		MIN.	TYP.	MAX.	
Repetitive Peak Forward and Reverse Blocking Current Rated VDRM and VRRM, Gate Open at TC = 125°C	 IDROM IRROM	 — —	 — —	 50 2	 μA mA
Forward "On State" Voltage ITM = 30A	VTM	—	1.8	2.6	V
Gate Trigger Current (dc) VD = 12 Vdc RL = 30 Ohms	IGT	—	10	15	mA
Gate Trigger Voltage (dc) VD = 12 Vdc, RL = 30 Ohms VD = VDRM, RL = 500 Ohms, TC = 125°C	VGT	— 0.2	1 —	1.5 —	V
Holding Current VD = 12 Vdc, IT (initial) = 200mA	IH	—	15	—	mA
Critical Rate of Rise of Off-State Voltage (Exponential Waveform) TC = 125°C, Gate Open, VD = VDRM S2600B, S2600D S2600M S2600N	dv/dt	— — — —	— 150 125 75	— — — —	V/μS
Turn-On Time IT = 2A, VD = VDRM IG = 80mA	tgt	—	1.2	—	μS
Turn-Off Time VD = VDRM, TC = 75°C, dv/dt = 20V/μS IT = 2A for 50 μS, di/dt = 10A/μS IG = 80mA at Turn-On	tq	—	65	—	μS
Thermal Resistance Junction to Case Junction to Ambient	RθJC RθJA	— —	— —	7 150	°C/W

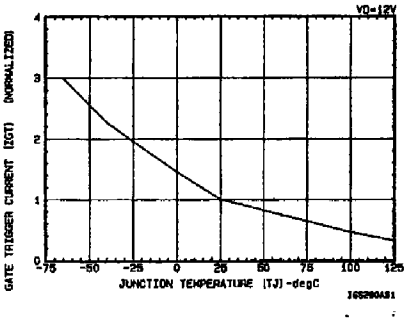


Fig. 1 - Typical Gate Trigger Current Vs. Temperature

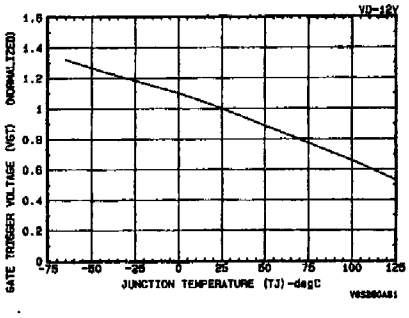


Fig. 2 - Typical Gate Trigger Voltage Vs. Temperature