

New Jersey Semi-Conductor Products, Inc.

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S2600B, S2600D, S2600M, S2600N

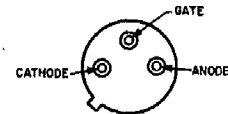
High Voltage, Medium Current Silicon Controlled Rectifiers

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

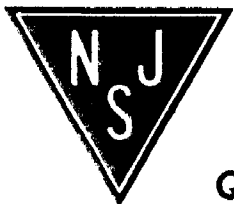
TERMINAL DESIGNATIONS



Low-Profile TO-205

MAXIMUM RATINGS, Absolute-Maximum Values:

	S2600B	S2600D	S2600M	S2600N	
V _{DRM}	200	400	600	800	V
V _{RRM}	200	400	600	800	V
I _T (RMS) (T _C = 65°C)			7		A
I _T (av) (T _C = 65°C, θ = 180 Deg.)			4.5		A
I _{TSM} (for 1 full cycle)			100		A
di/dt			200		A/ μ s
I ² T (at 8.3 ms)			40		A ² s
(at 1.5 ms)			30		A ² s
PGM (for 10 μ s max.)			15		W
PG (av) (Averaging time 10ms max.)			0.5		W
T Storage			-65 to 150		°C
T _J			-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

S2600B, S2600D, S2600M, S2600N

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

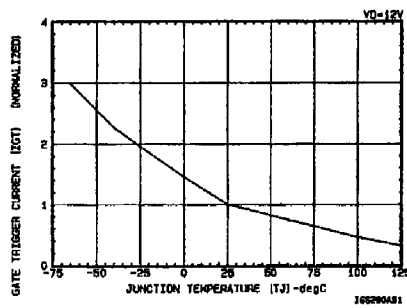


Fig. 1 - Typical Gate Trigger Current Vs. Temperature

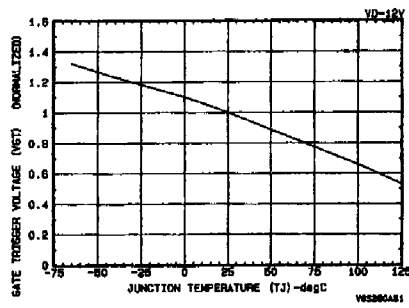


Fig. 2 - Typical Gate Trigger Voltage Vs. Temperature