

Or, Call Customer Service at 1-800-548-6132 (USA Only)



REG5601

SCSI 18-LINE ACTIVE TERMINATOR

FEATURES

- FULLY COMPLIANT WITH SCSI-2 SPECIFICATIONS
- ACTIVE 18-LINE TERMINATOR
- INTERNAL 2.9V REGULATOR
- ON-CHIP TERMINATION RESISTORS
- DISCONNECT ALL TERMINATION RESISTORS WITH A SINGLE LOGIC COMMAND
- POWER-DOWN MODE: 150 μ A max
- OUTPUT CAPACITANCE IN DISCONNECT MODE: 10pF typ
- CURRENT LIMIT AND THERMAL SHUT-DOWN PROTECTION
- 28-Lead SOIC PACKAGE
- SECOND SOURCE FOR UC5601DWP

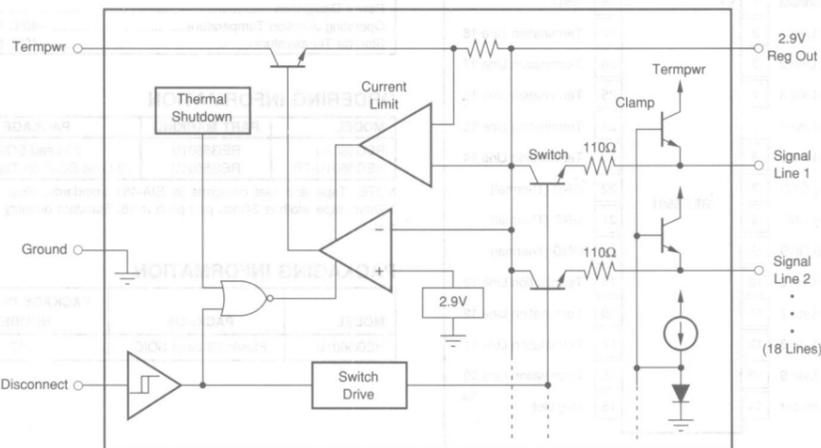
DESCRIPTION

The REG5601 is an 18-line active terminator for SCSI-2 (Small Computer Systems Interface) circuitry. On-chip resistors and 2.9V regulator provide the prescribed 110 Ω termination for low power dissipation and high speed data transmission.

All line connections can be disconnected from the bus with a single logic control line to reduce standby power consumption. Output lines remain high impedance without power applied. Each line is individually clamped at ground to dissipate negative-going glitches.

The 2.9V regulator is current-limited and thermally protected. Regulated output is available for external circuitry.

The REG5601 is packaged in a 28-lead surface-mount package and is specified for operation over the 0 to 70 $^{\circ}$ C temperature range.



International Airport Industrial Park • Mailing Address: PO Box 11400 • Tucson, AZ 85734 • Street Address: 6730 S. Tucson Blvd. • Tucson, AZ 85706
Tel: (602) 746-1111 • Twx: 910-952-1111 • Cable: BBRCORP • Telex: 066-6491 • FAX: (602) 889-1510 • Immediate Product Info: (800) 548-6132



PDS-1216A

8.79

REG5601



REFERENCES AND REGULATORS

For Immediate Assistance, Contact Your Local Salesperson

SPECIFICATIONS

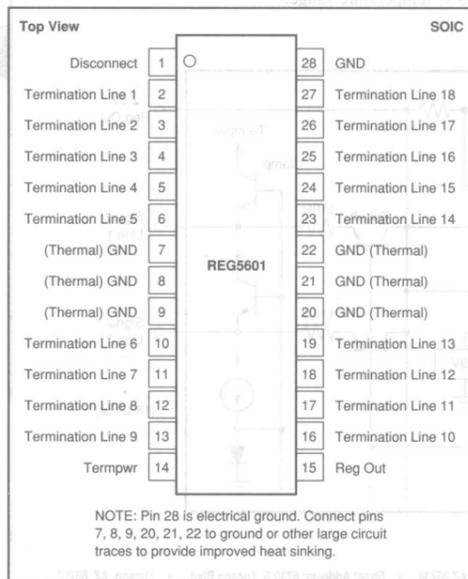
ELECTRICAL

T_A = 0°C to +70°C, Tempwr = 4.75V, Disconnect = 0V, unless otherwise specified.

PARAMETERS	CONDITIONS	REG5601U			UNIT
		MIN	TYP	MAX	
POWER SUPPLY					
Tempwr Supply Voltage		4.0		5.25	V
Tempwr Supply Current	All Termination Lines = Open		14	25	mA
	All V _{TERM} = 0.5V		385	430	mA
Power-Down Mode	Disconnect = Open (High)		100	150	μA
TERMINATION LINES					
Termination Impedance	ΔI _{TERM} = 5mA to 15mA	107	110	115	Ω
Output High Voltage	Tempwr = 4V, Note 1	2.65	2.8		V
Maximum Output Current	V _{TERM} = 0.5V	20.5	21.7	22.4	mA
	V _{TERM} = 0.5V, Tempwr = 4V, Note 1	19.4	21	22.4	mA
Output Clamp Level	I _{TERM} = -30mA	-0.2	-0.05		V
Output Leakage	Disconnect = Open (High), Tempwr = 0V to 5.25V		20	400	nA
Output Capacitance	Disconnect = Open (High)		10		pF
REGULATOR					
Regulator Output Voltage		2.8	2.9	3.0	V
Line Regulation	Tempwr = 4V to 6V		6	20	mV
Load Regulation	I _{REG} = 0 to 400mA		20	50	mV
Drop-Out Voltage	All V _{TERM} = 0.5V, ΔV _{REG} = 100mV		1.0	1.2	V
Short-Circuit Current	V _{REG} = 0V	450	1350	1650	mA
Current Sink	V _{REG} = 3.5V	8	11		mA
Thermal Shutdown			170		°C
DISCONNECT LOGIC INPUT					
Disconnect Threshold		0.8	1.6	2.0	V
Threshold Hysteresis			200		mV
Input Current (Internal Pull-Up)	Disconnect = 0V		6	15	μA
TEMPERATURE RANGE					
Operating		0		70	°C
Storage		-40		150	°C
θ _{JC} (junction-to-lead)			18		°C/W
θ _{JA} (junction-to-ambient)			38		°C/W

NOTE: (1) Measurement of each termination line while the other 17 lines are held low (0.5V).

CONNECTION DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Tempwr Voltage	+7V
Signal Line Voltage	0V to +7V
Regulator Output Current	1.65A
Power Dissipation	2.5W
Operating Junction Temperature	-40°C to +150°C
Storage Temperature	-40°C to +150°C

ORDERING INFORMATION

MODEL	PART MARKING	PACKAGE
REG5601U	REG5601U	28-Lead SOIC
REG5601U-TR	REG5601U	28-Lead SOIC on Tape & Reel

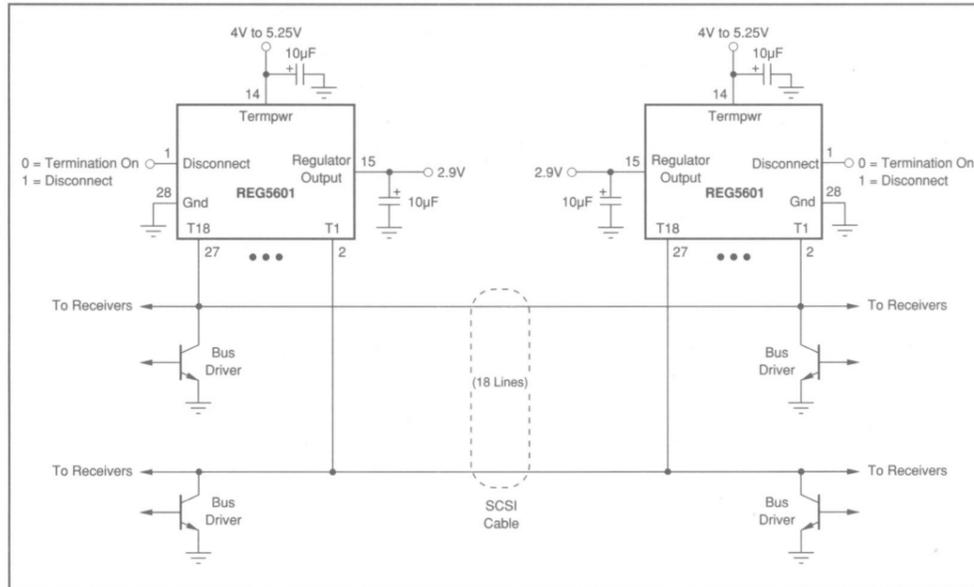
NOTE: Tape and reel conforms to EIA-481 standards. Reel diameter is 360mm, tape width is 24mm, part pitch is 16. Standard quantity is 1000 per reel.

PACKAGING INFORMATION

MODEL	PACKAGE	PACKAGE DRAWING NUMBER
REG5601U	Plastic 28-Lead SOIC	217

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PRODUCT APPLICATION FOR STANDARD SCSI CONFIGURATION



REG5601



REFERENCES AND REGULATORS

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