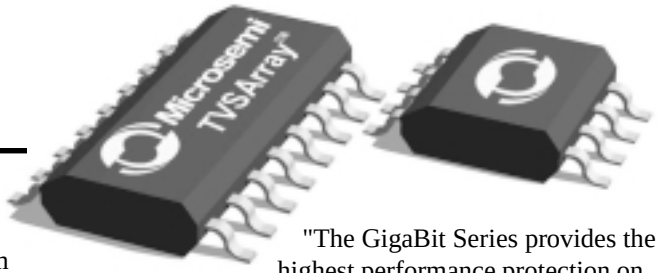
NOW Products

Protecting



GigaBit TVS Series Has Highest Speed Protection for Cable Modem, Network, and Voice-Over Internet Protocol

Microsemi's new TVS series provides lowest capacitance and highest electrostatic Discharge Protection at Data Rates in Excess of 1000mB per Second. The highly integrated transient voltage suppression devices exceed stringent over-voltage protection and small space requirements of sensitive CMOS integrated circuits used in broadband communication and networking equipment.

The new GigaBit series enables designers of cable modems, DSL modems, and voice-over IP products to provide the most effective protection available today from damaging electrostatic discharges (ESDs), electrical fast transients and lightning surges -- without impeding data transmission rates.

Microsemi developed the GigaBit Series by analyzing requirements outlined in IEEE 802.3ab standard for Gigabit Ethernet over Category 5 unshielded twisted-pair (UTP) copper wiring and data from leading communications chip manufacturers.

"These new devices offer designers the flexibility to introduce protection without limiting performance," said Mick McKeighan, vice president and general manager of Microsemi's Transient Suppression business unit.

"The GigaBit Series provides the highest performance protection on the market, with data rates compatible with speeds achieved by broadband communication IC manufacturers. Our devices are up to four times faster than the competition."

Danger from electrical fast transients, ESD, and lightning grows as communication speeds above 1000mb/second are implemented.

Microsemi's new GBIT08 Series are the first TVS devices to integrate ESD protection for a two-line protection scheme into a single SO-8 surface mount package.

Designed with Microsemi's proprietary Low Capacitance TVSArray technology, the GBIT family eliminates the need for up to six discrete protection components while offering the industry's best ESD, clamping, and capacitance specifications.

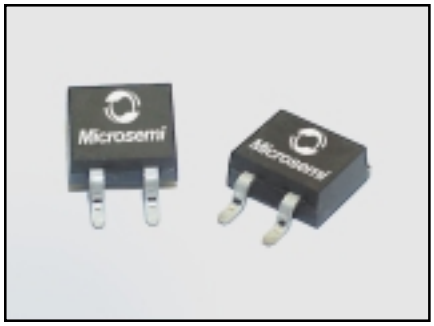
GBIT08 TVS arrays are available now in an SO-8 package. Pricing is $1.50 per unit in quantities of 10,000. A single-line version of this series is also available in an SOT-143 package.

PART NUMBER	STAND OFF VOLTAGE V_{WM} (Volts)	BREAKDOWN VOLTAGE V_{BR} @1 mA (Volts)	CLAMPING VOLTAGE V_C @ 1 Amp (Volts)	CLAMPING VOLTAGE V_C @ 5 Amp (Volts)	CAPACITANCE (f = 1 MHz) @ 0V C (pF)
	MAX	MIN	MAX	MAX	TYP
GBIT0803C	3.3	4	6.5	7.5	5
GBIT0805C	5	6	9.8	18	5
GBIT0812C	12	13.3	17.9	25	5
GBIT0815C	15	16.7	25.5	32	5
USB0824C	24	26.7	47.5	59	5

NOW Products

Switching

N-Channel Power MOSFETs in D² Package



Microsemi's PPC Division now has available a full line of N-Channel Power MOSFETs in the D² Package.

A typical application for these devices would be in switching Power Supplies.

PART#	BVDSS	ID	RDS(on)
IRFZ40	50	35	0.028
IRFZ34	60	30	0.05
IRFZ44	60	50	0.028
IRFZ48	60	50	0.018
IRF510	100	5.6	0.54
IRF520	100	9.2	0.27
IRF530	100	14	0.16
IRF540	100	28	0.077
IRF610	200	3.3	1.5
IRF620	200	5.2	0.8
IRF630	200	9	0.4
IRF634	250	8.1	0.45
IRF640	200	18	0.18
IRF710	400	2	3.6
IRF720	400	3.3	1.8
IRF730	400	5.5	1
IRF830	500	4.5	1.5
BUZ71	50	56	0.1

Contact Bill Kearns of Microsemi PPC, Inc. at (561) 842-0305, or bkearns@microsemi.com for samples and pricing.

Visit Microsemi's website at: www.microsemi.com for full product data sheets.

RF Applications

RF & Microwave Pin Diodes

UMM 5050
The UMM 5050 is a 5 KW, 5 KV PIN Diode Module designed for high power HF Band switching applications for the Industrial Market. In the "on" state, the module sustains a continuous RF current of 15 Amperes and the Maximum RF current rating is 20 Amperes. A d-c bias current source of 500 mA is sufficient to control the RF power in the "on" state.

HUM 2020, HUM 2015, HUM 2010
The HUM 2020 is a High Power Stud Mounted PIN Diode, rated at 2000 Volts, 13 Watt (dissipated power). It is intended for Load Switching and Power Tuning for Industrial and MRI applications. Other PIN diodes in the series are the 1500 Volt, HUM 2015 and the 1000 Volt, HUM 2015.

UM 2310
The UM 2310 is a high power PIN diode, designed for transmit / receive switch and attenuator applications in MF & HF Bands. As a series configured switch, these long lifetime (80 µs typ) can control up to 2.5 KW CW in a 50 Ohm system.

UM 9552
The UM 9552 is a long lifetime (70 µs typ) PIN Diode that has been developed to enhance attenuator linearity for Automatic Gain Control requirements in MF & low HF Bands.

UM 9552's, in a 50 Ohm Bridged Tee Circuit Configuration, typically exhibit Third Order Intermodulation Products below - 60 dBc with 0 dBm input power, over an attenuation range of 4 dB to 24 dB.

UM 9552's exhibit a more linear forward biased resistance (Rs) vs forward biased current (If) relationship, which greatly simplifies the design of the driver circuits that provide the PIN Diode bias currents needed to maintain the matched attenuator condition over the attenuation range.

DIODE TYPE	MF APPLICATION	HF 300 - 3,000 KHZ	HF 2 30 MHZ
UMM 5050	SWITCH		X
HUM 2020	SWITCH		X
UM 2304	SWITCH	X	X
UM 2310	SWITCH	X	X
UM 9552	ATTENUATOR	X	X

Contact Bill Doherty of Microsemi Watertown, MA. at (617)926-0404 or bdoherty@microsemi.com for samples and pricing.

Microsemi Expands RF Market Presence With Acquisition Of Narda Microwave's Semiconductor Operation

Microsemi announced on June 25th the acquisition of Narda Microwave's Semiconductor operation for $5 million in cash. The Narda Semiconductor operation, located in Lowell, Massachusetts, is an integrated manufacturer of semiconductor components including varactor diodes, pin diodes, chip capacitors and Schottky devices used in telecommunications, wireless, satellite and industrial test/measurement applications. It serves a worldwide customer base.
Under Microsemi, the former Narda operation will strengthen its position in the military/defense sector, while expanding growth in telecommunications, with a focus on satellite mobile subscriber services and user terminals market.

NOW Products

Linear & Mixed Signal ICs

SCSI Terminators

Ultra2 Multimode Terminators

- **Automatic Mode Selection:** Automatically selects LVD or single-ended termination mode.
- **Backwards Compatible:** Works for SCSI-1, Fast SCSI, Ultra SCSI, and Ultra2 SCSI termination, for continued use of legacy devices on the bus.
- **Reduces Component Count:** Requires no external capacitors for references or regulators.
- **Faster Data Rates:** Ultra2 SCSI data rates are as high as 640 megabits (80 megabytes) per second.

LinFinity's UltraMAX line now includes the LX5241/42/43 models, adding the ability to switch automatically between low voltage differential (LVD) and single-ended bus termination to all the advanced features found in every UltraMAX SCSI terminator. Backwards compatibility allows for painless conversion to the faster data rates of Ultra2 SCSI.

UltraMAX Technology

Lines	Device	Enable	PnP	Package
Ultra2 SCSI Terminators				
9	**LX5241/42**	L / H	N	TSSOP-24, SSOP-36
9	**LX5243**	L	N	TSSOP-28
Ultra SCSI Terminators				
9	**LX5218/19**	L / H	N	TSSOP-20, SOWB-16
9	**LX5111/12**	H / L	N	TSSOP-24, SOIC-16
9	**LX5111A / 12A**	H / L	N	TSSOP-24, SOIC-16
9	**LX5115**	H	N	TSSOP-20, SOIC-16, SOWB-16
9	**LX5115A**	H	N	TSSOP-20, SOIC-16, SOWB-16
18	**LX5225**	H	Y	SOWB-28, SSOP-28
18	**LX5226**	L	N	SOWB-28, SSOP-28
27	**LX5121**	H	Y	SSOP-44
27	**LX5122**	L	Y	SSOP-44

Microprocessor Power Solutions for Desktop and Peripherals

- **Synchronous PWM Output & Modulated Constant Off-Time Architecture.**
- **Programmable Output:** 5-bit digital code sets output between 1.3 and 3.5V.
- **Linear Regulators & Drivers Avail.**
- **Reduces Component Count:** Simple design reduces external component requirements.
- **Saves Space:** Small surface-mounts.

LinFinity's advanced switching regulators provide high performance economical solutions for Pentium®, Pentium II & III, AMD-K6™, and Cyrix 6x86™ processors.

Programmable PWM Controllers

Device	Linear Reg. Driver	Pwr Good & OVP	Package
LX1662	No	No	SOIC-14
LX1663	No	Yes	SOIC-16
LX1664	Yes	No	SOIC-16
LX1665	Yes	Yes	SOWB-18
LX1668	Yes	Yes	SO-20, TSSOP
LX1669	No	Yes	SO-16

Other µProcessor Controllers & Supervisors

Device	Description
LX1660 / 1661	Adv. PWM Controller (Adj. Output)
LX1670	Prog. Reference and Voltage Monitor
LX1681 / 1682	Voltage-Mode PWM Contoller
LX1553	Ultra-Low Start-Up Cur., Cur.-Mode PWM
MC33064 / 34064	Precision Programmable Reference
LX432	1.25V Precision Programmable Ref.

Microsemi Announces Formation Of Two New Analog Design Centers

Will Develop Products in Support of Portable and Medical Electronics Markets

Microsemi announced on July 8th the formation of two new design centers, one in San Jose and one in San Diego, to support development of analog and mixed signal integrated circuits that it plans to manufacture at its recently acquired Linfinity division in Garden Grove, CA.

Microsemi said the San Jose organization will focus on portable electronics components for such applications as mobile phones, PDA's and portable computing, while the San Diego center will design circuits for medical electronics products including pacemakers, defibrillators and hearing aids.

Both centers are expected to grow and are enlisting additional designers, the Company said.

"By establishing these new design centers, we plan to accelerate new product development and growth for our Linfinity division," said Philip Frey, Jr., Chairman and CEO of Microsemi Corporation. "This represents a part of the investment plan for Linfinity which we acquired in April 1999."

Low Dropout Regulators

Output Current	Device	Max. Dropout Voltage	Fix. Output Voltage	Adj. Voltage Range
0.5A	**LX8415-xx**	1.3V	3.3V	1.25 to 8V
0.8A	**LX8117-xx**	1.2V	2.85, 3.3, 5V	1.25 to 8V
1.0A	**LX8117A-xx**	1.3V	2.85, 3.3, 5V	1.25 to 8V
1.0A	**LX8940 / 8941**	0.8V	5V / NA	NA / 1.25 to 25V
1.5A	**LX8386-xx**	1.3 to 1.5V	3.3V	1.25 to 8V
3.0A	**LX8385-xx**	1.3 to 1.5V	3.3, 5V	1.25 to 8V
3.0A	**LX8587-xx**	1.2 to 1.3V	3.3V	1.25 to 8V
3.0A	**LX8630-xx**	0.6V	2.5, 3.3V	1.25 to 5V
4.6A	**LX8585-xx**	1.2 to 1.4V	1.5, 3.3V	1.25 to 8V
5.0A	**LX8384-xx**	1.3 to 1.5V	1.5, 3.3V	1.25 to 8V
5.0A	**LX8554-xx**	1V	3.3V	1.25 to 8V
6.0A	**LX8586-xx**	1.1 to 1.3V	3.3V	1.25 to 8V
7.0A	**LX8580**	0.55V	NA	1.25 to 8V
7.0A	**LX8584-xx**	1.2 to 1.4V	3.3V	1.25 to 8V
7.5A	**LX8383-xx**	1.3 to 1.5V	3.3V	1.25 to 8V
8.5	**LX8582-xx**	1.3V	3.3V	1.25 to 8V
10.0	**LX8382-xx**	1.4V	3.3V	1.25 to 8V