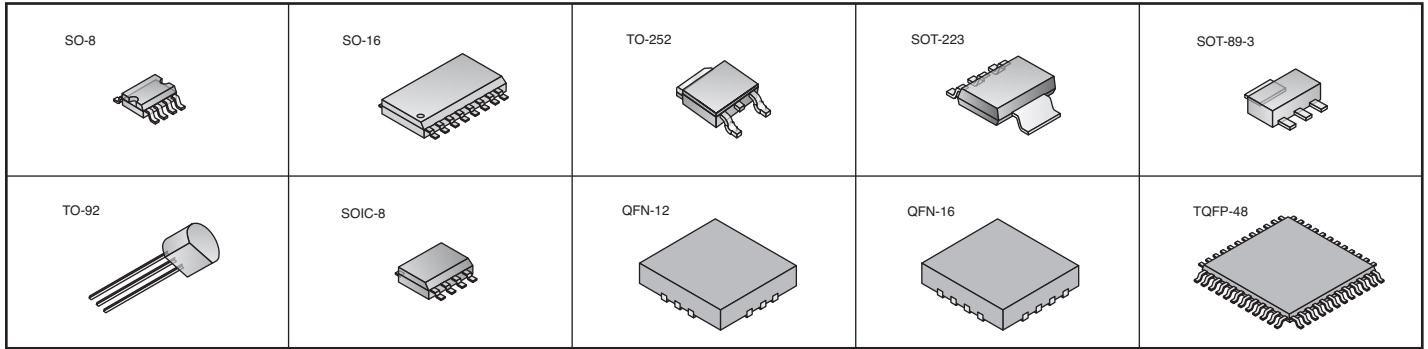


SUPERTEX Analog Integrated Circuits



Products may be RoHS compliant. Check mouser.com for RoHS status.



◆ Surface Mount Device

SUPERTEX HOTSWAP CONTROLLER/IN-RUSH CURRENT LIMITER/CIRCUIT BREAKER INTEGRATED CIRCUITS

HV1xx and HV3xx hotswap product families are designed to control the inrush current while eliminating any undesirable glitches resulting from hot insertion of the circuit cards into live backplanes. The award winning HV1xx, requires no external components, except a single pass element to operate. It utilizes an innovative and proprietary design that normalizes the hotswap period, regardless of pass element and load capacitor resulting in consistent hotswap operations. The HV3xx families offer programmable inrush control, programmable circuit breaker current (internal 100mv sense) as well as programmable input under and over voltage thresholds. An open drain Power Good (PWRGD) signal is generated once all conditions have been satisfied.

HV100/101 Features:

- Top 100 products EDN magazine
- Industry first 3 pin hotswap controller
- MOSFET Auto adapting circuit
- Safe Hotswapping on backplane power supply rail
- Patent pending short circuit protection
- For Evaluation/Design Shortcut see Demo Boards



RoHS Compliant

Demo Boards

- IC Included
- RoHS: non-compliant / Contains Pb

MOUSER STOCK NO.	Price Each
689-HV100DB1	50.00
689-HV101DB1	50.00

For quantities of 2000 and up, call for quote.

High Voltage, Negative Rail Break

MOUSER STOCK NO.	Supertex Part No.	Package	Input Voltage V_{IN}		Input Current I_{IN}	UV/OV Protection	Circuit Breaker	Sense Resistor	Auto Retry	Power Good Signal	No. of Channels	Price Each			
			Min. ($\pm V$)	Max. ($\pm V$)								1	100	500	1000
◆ 689-HV100K5-G	HV100K5-G	SOT-223	38/34	72	1	UV	Until C-Load Fully Charged	---	Yes	---	1	1.48	1.23	1.14	1.09
◆ 689-HV101K5-G	HV101K5-G	SOT-223	16/12	72	1	UV	Until C-Load Fully Charged	---	Yes	---	1	1.48	1.23	1.14	1.09
◆ 689-HV310LG-G	HV310LG-G	SO-8	10	90	0.65	Both	---	Optional	Optional	L	1	2.36	1.96	1.81	1.74

SUPERTEX LINEAR REGULATOR INTEGRATED CIRCUITS

The LR6 is a high-input voltage linear regulator for simple functions such as SMPS start-up and high-voltage line conditioning/regulation. The LR7 is a high-input voltage SMPS start-up circuit. The LR8 has an adjustable output voltage. The SR036 and SR037 are dual output, off-line regulators. The LR12 is a high voltage, low output current, adjustable linear regulator. It has a wide operating input voltage range of 13.2V to 100V.



RoHS Compliant

- For Evaluation/Design Shortcut see Demo Boards

* Dual output, off-line regulator

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Supertex Part No.	Package	Input Voltage V_{IN}		Output Voltage HV_{OUT} (V) Typ.	Input Current I_{IN} Max. (mA)	Regulation Typical		Power Dissipation @TA=25°C (W)	Price Each			
			Min. (+V)	Max. (+V)			Line	Load		1	100	500	1000
◆ 689-LR12K4-G	LR12K4-G	TO-252	13	100	1.2/88	50	0.003%/V	0.06%/mA	2	1.75	1.45	1.34	1.29
◆ 689-LR12LG-G	LR12LG-G	SO-8	13	100	1.2/88	50	0.003%/V	0.06%/mA	1.8	1.52	1.26	1.17	1.12
◆ 689-LR12N3-G	LR12N3-G	TO-92	13	100	1.2/88	50	0.003%/V	0.06%/mA	0.6	1.39	1.15	1.07	1.02
◆ 689-LR645N3-G	LR645N3-G	TO-92	15	450	10	3	0.0001%/V	0.5%/mA	0.74	59	49	45	43
◆ 689-LR645N8-G	LR645N8-G	SOT-89-3	15	450	10	3	0.0001%/V	0.5%/mA	1.6	76	63	58	56
◆ 689-LR745N3-G	LR745N3-G	TO-92	25	450	20	4	0.0001%/V	0.5%/mA	---	63	52	48	46
◆ 689-LR8K4-G	LR8K4-G	TO-252	12	450	1.2 - 440	10	0.003%/V	0.15%/mA	2.5	1.14	95	88	84
◆ 689-LR8N8-G	LR8N8-G	SOT-89-3	12	450	1.2 - 440	10	0.003%/V	0.15%/mA	1.6	76	63	58	56
◆ 689-LR8N3-G	LR8N3-G	TO-92	12	450	1.2 - 440	10	0.003%/V	0.15%/mA	0.74	72	60	55	53
◆ 689-SR086SG-G *	SR086SG-G	SOIC-8	80	285	9 - 50 & 3	100	----	0.02	----	1.41	1.17	1.08	1.04
◆ 689-SR087SG-G *	SR087SG-G	SOIC-8	80	285	9 - 50 & 5	100	----	0.02	----	1.41	1.17	1.08	1.04

SUPERTEX MOSFET DRIVERS

High Voltage

These are a family of single high voltage, low input current isolated drivers utilizing Supertex's proprietary HVCOSMOS® technology. They are designed to drive discrete MOSFETs configured as high side switches up to 400V. They do not require any external power supplies.



RoHS Compliant

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Supertex Part No.	Package	Channels	Input Voltage V_{IN}		Output Voltage HV_{OUT}		Input to Output Isolation (V)	Operating Temp. (°C)	Ext. Clock Frequency		Price Each			
				Low (V)	High (V)	Low (V)	High (V)			Min (MHz)	Max (MHz)	1	100	500	1000
◆ 689-HT0440LG-G	HT0440LG-G	SOIC-8	2	3.15	5.5	6	10	±400	-40 to +85	0.5	2	2.24	1.86	1.72	1.65
◆ 689-HT0740LG-G	HT0740LG-G	SOIC-8	1	3.15	5.5	5	9	±400	-40 to +85	---	---	1.35	1.12	1.04	.99

High Speed

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Supertex Part No.	Package	Channels	Input Voltage V_{IN}		Output Voltage HV_{OUT}		Peak Output Sink Current Type (A)	Peak Output Source Current Type (A)	Output Rise/Fall Typ. (ns)	Propagation Delay Match Typ (ns)	Price Each			
				Low (V)	High (V)	Low (V)	High (V)					1	100	500	1000
◆ 689-MD1210K6-G	MD1210K6-G	QFN-12	2	4.5	13	0	13	2	2	6.0/6.0	±2	2.30	1.91	1.77	1.69
◆ 689-MD1211LG-G	MD1211LG-G	SOIC-8	2	4.5	13	0	13	2	2	10/10	±3	1.20	1.00	.92	.88
◆ 689-MD1711FG-G	MD1711FG-G	TQFP-48	12	1.8	5.5	-12	12.6	2(P-Ch)/1.5(N-Ch)	2(P-Ch)/1.5(N-Ch)	8.0/8.0	±3	11.04	9.18	8.48	8.13
◆ 689-MD1810K6-G	MD1810K6-G	QFN-16	4	1.2	5.0	----	----	2	2	6.0/6.0	±2	2.89	2.40	2.22	2.13
◆ 689-MD1811K6-G	MD1811K6-G	QFN-16	2	1.2	5.0	----	----	2	2	6.0/6.0	±2	2.89	2.40	2.22	2.13
◆ 689-MD1812K6-G	MD1812K6-G	QFN-16	4	1.2	5.0	----	----	2	2	6.0/6.0	±2	3.14	2.61	2.41	2.31
◆ 689-MD1813K6-G	MD1813K6-G	QFN-16	4	1.2	5.0	----	----	2	2	6.0/6.0	±2	3.14	2.61	2.41	2.31

SUPERTEX RELAY DRIVER INTEGRATED CIRCUITS

The Supertex HV9901 is a BiCMOS/DIMOS universal relay driver that employs PWM switching techniques. It is designed for efficient and energy-saving operation of a low voltage relay with supply voltages ranging from 10-450V DC through utilization of the relay coils' inductance.

Source/Sink Outputs - Push-Pull

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Supertex Part No.	Package	Input Voltage V_{IN}		Input Current I_{IN} Max. (mA)	Oscillator Frequency			Current Sense		Ext. Adjustable Reg. Output Voltage (V)	Current (mA)	Price Each			
			Min. (V)	Max. (V)		Min. (KHz)	Max. (KHz)	Fsync-Max. (KHz)	Typ. Pull-In (V)	Hold			1	100	500	1000
◆ 689-HV9901NG-G	HV9901NG-G	SO-16	10	450	2	20	140	150	0.883	Adjustable	2.0 - 5.5	1	2.00	1.69	1.66	1.63

