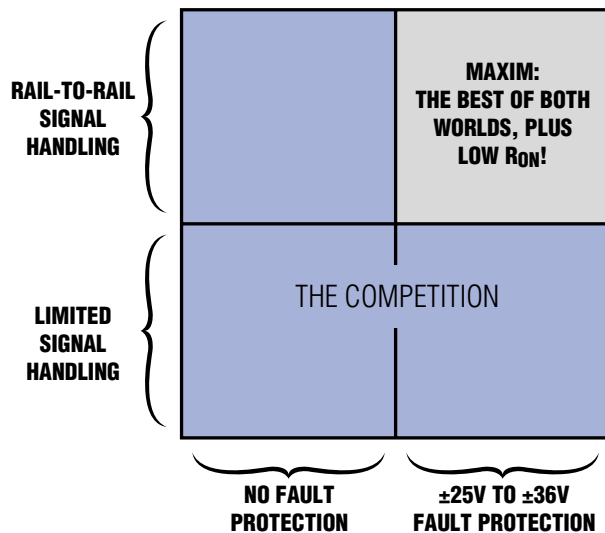


ADD $\pm 36\text{V}$ FAULT PROTECTION WITHOUT COMPROM

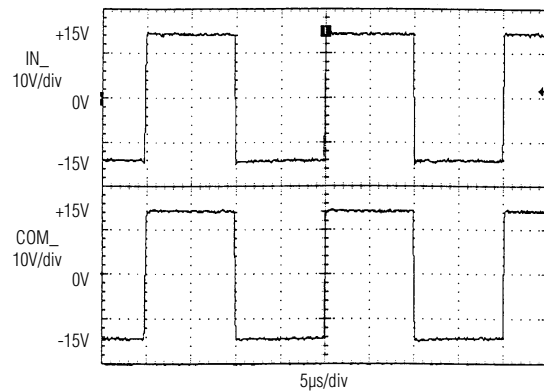
Maxim's Family Features Rail-to-Rail Signal Hand



Maxim's breakthrough architecture delivers fault protection and high performance in industry-standard pinouts, leaving the competition behind!

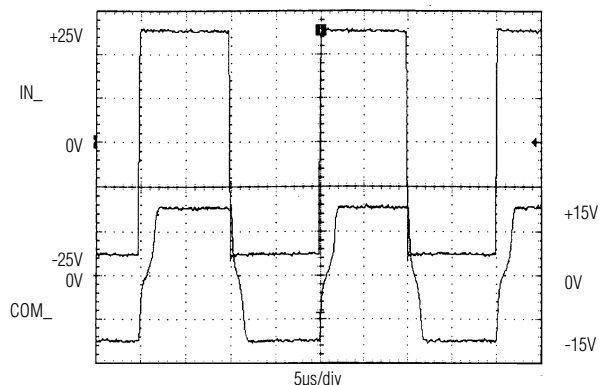
- ◆ Rail-to-Rail® Signal Handling from $\pm 4.5\text{V}$ to $\pm 20\text{V}$
- ◆ Low R_{ON} of 175Ω Matched to 10Ω (Switches)
- ◆ No Power-Supply Sequencing Required During Power-Up or Power-Down
- ◆ Industry-Standard Configurations
- ◆ Overvoltage Protection (Power On):
 - $\pm 36\text{V}$ SPST Switches, Signal-Line Protectors
 - $\pm 25\text{V}$ SPDT Switches, Multiplexers
- ◆ Output IC Protection:
 - Output Clamps to Appropriate Supply Voltage During Input Fault Condition
 - $1\text{k}\Omega$ typ Output Clamp Resistance During Input Overvoltage
 - All Channels Off with Power Off
 - Only Nanoamps of Fault Current with Mux Power On or Off
- ◆ $\pm 40\text{V}$ Overvoltage Input Protection (Power Off)

FAULT-FREE SIGNAL PERFORMANCE



Fault-free rail-to-rail signal handling with $\pm 15\text{V}$ supplies.

INPUT OVERVOLTAGE vs. OUTPUT CLAMPING



$\pm 25\text{V}$ overvoltage input with the output clamped at $\pm 15\text{V}$.

TO YOUR ANALOG SWITCHES USING PERFORMANCE

High Performance, Low R_{ON} , and No Power-Supply Sequencing†



See
www.chipcenter.com/analog/product_archives/prod269.htm
for details

Fault-Protected Switches

Part	Function	R_{ON} (Ω_{max})	R_{ON} Match (Ω_{max})	Input Off- Leakage (nA max)	$I_{COM(OFF)}$ Leakage (nA max)	t_{ON}/t_{OFF} (ns max)	Supply Voltage Range (V)	Pin-Package	Industry- Standard Pinout
MAX4510	SPST NC	160	N/A	± 0.5	± 0.5	500/175	± 4.5 to ± 20	6-pin SOT23/8-pin μ MAX	N/A
MAX4511	4 SPST NC	175	10	± 0.5	± 0.5	500/400	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG211/201/411
MAX4512	4 SPST NO	175	10	± 0.5	± 0.5	500/400	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG212/202/412
MAX4513	4 SPST NC, NO	175	10	± 0.5	± 0.5	500/400	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG213/413
MAX4520	SPST NO	160	N/A	± 0.5	± 0.5	500/175	± 4.5 to ± 20	6-pin SOT23/8-pin μ MAX	N/A
MAX4533	4 SPDT	175	10	± 0.5	± 0.5	250/150	± 4.5 to ± 20	20-pin DIP/SO/SSOP	MAX333
MAX4631	2 SPST NO	175	10	± 0.5	± 0.5	500/400	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG401
MAX4632	2 DPST	175	10	± 0.5	± 0.5	500/400	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG403
MAX4633	2 SPDT	175	10	± 0.5	± 0.5	500/400	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG405

Fault-Protected Muxes

Part	Function	R_{ON} (Ω_{max})	R_{ON} Match (Ω_{max})	Input Off-Leakage (nA max)	$I_{COM(OFF)}$ Leakage (nA max)	t_{ON}/t_{OFF} (ns max)	Supply Voltage Range (V)	Pin-Package	Industry- Standard Pinout
MAX4508	8 to 1	400	15	± 0.5	± 2	275/200	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG408/508/438
MAX4509	Dual 4-to-1	400	15	± 0.5	± 1	275/200	± 4.5 to ± 20	16-pin DIP/SO/SSOP	DG409/509/439

Signal-Line Circuit Protectors

Part	Function	R_{ON} (Ω_{max})	R_{ON} Match (Ω_{max})	$I_{COM(ON)}$ Leakage (nA max)	Supply Voltage Range (V)	Pin-Package	Industry- Standard Pinout
MAX4505	1-Line	100	N/A	± 0.5	± 4.5 to ± 20	5-pin SOT23/8-pin μ MAX	N/A
MAX4506	3-Line	100	7	± 0.5	± 4.5 to ± 20	8-pin DIP/SO	MAX366
MAX4507	8-Line	100	7	± 0.5	± 4.5 to ± 20	8-pin DIP/SO	MAX367



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