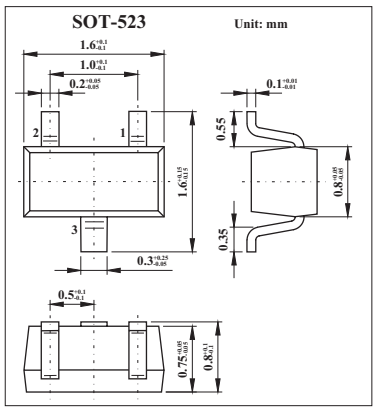
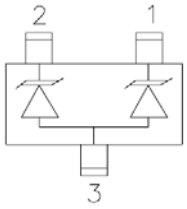
KClamp0502B



■ Features

- ●Designed to replace polymer TVS
- ●Protects up to two I/O lines
- ●Ultra-Low capacitance (＜1pF)
- ●No insertion loss to ＞3.0GHz
- ●Low profile (＜1mm)
- ●Low leakage current and clamping voltage



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Peak Pulse Power (tp = 8/20μs)	P_{pk}	125	W
Peak Pulse Current (tp = 8/20μs)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 8	KV
Operating Temperature	T_J	-55 to +125	℃
Storage Temperature	T_{STG}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}	Pin 1 or Pin 2 to Pin 3 and Between Pins 1 and 2			5	V
Reverse Breakdown Voltage	V_{BR}	It = 1mA Pin 1 or Pin 2 to Pin 3 and Between Pins 1 and 2	6			V
Reverse Leakage Current	I_R	V_{RWM} = 5V, T=25℃ Pin 1 or Pin 2 to Pin 3 and Between Pins 1 and 2			1	μA
Clamping Voltage	V_C	I_{PP} = 1A, tp = 8/20μs Pin 1 to Pin 2			15	V
Clamping Voltage	V_C	I_{PP} = 5A, tp = 8/20μs Pin 1 or Pin 2 to Pin 3			22	V
Clamping Voltage	V_C	I_{PP} = 5A, tp = 8/20μs Pin 1 to Pin 2			25	V
Junction Capacitance	C_j	V_R = 0V, f = 1MHz Pin 1 to Pin 2		0.60	0.9	pF
Junction Capacitance	C_j	V_R = 0V, f = 1MHz Pin 1 or Pin 2 to Pin 3			1..2	pF

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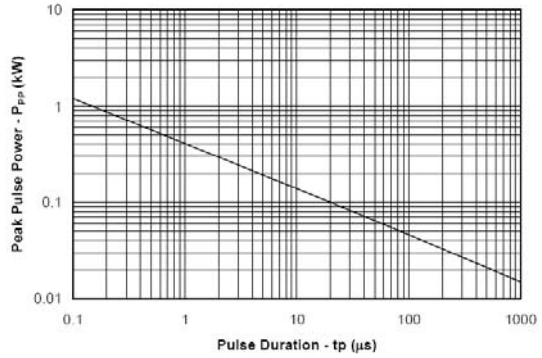
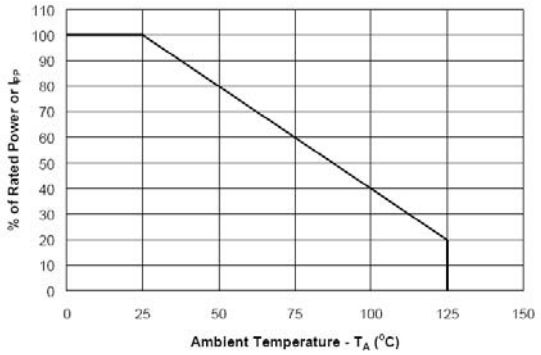
■ Typical Characteristics

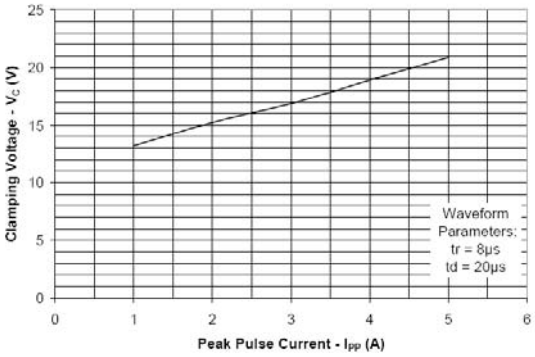
Non-Repetitive Peak Pulse Power vs. Pulse Time



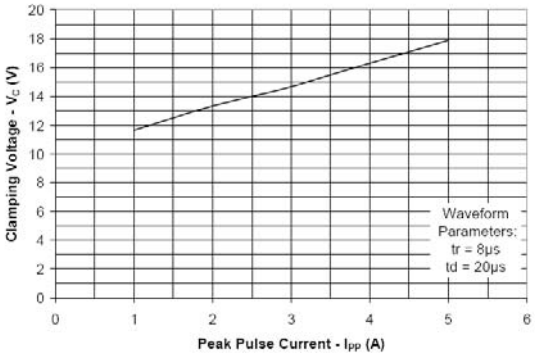
Power Derating Curve



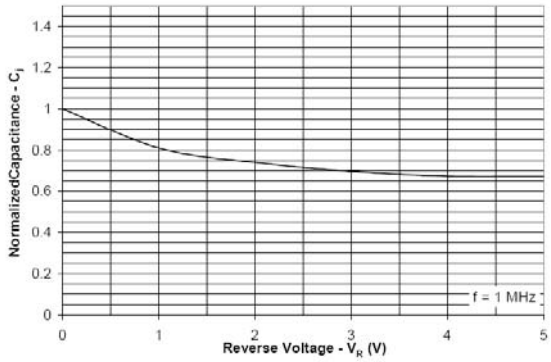
Clamping Voltage vs. Peak Pulse Current Pin 1 to Pin 2



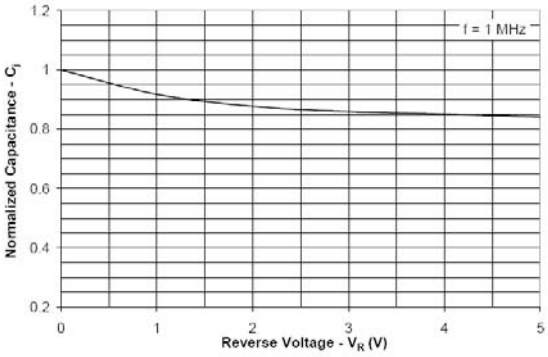
Clamping Voltage vs. Peak Pulse Current Pin 1 or Pin 2 to Pin 3



Normalized Capacitance vs. Reverse Voltage Pin 1 or Pin 2 to Pin 3



Normalized Capacitance vs. Reverse Voltage Pin 1 to Pin 2



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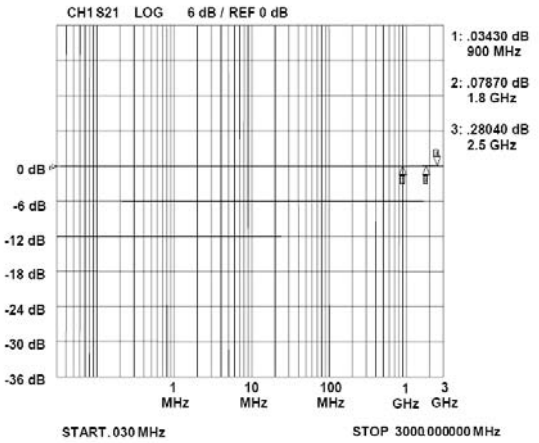
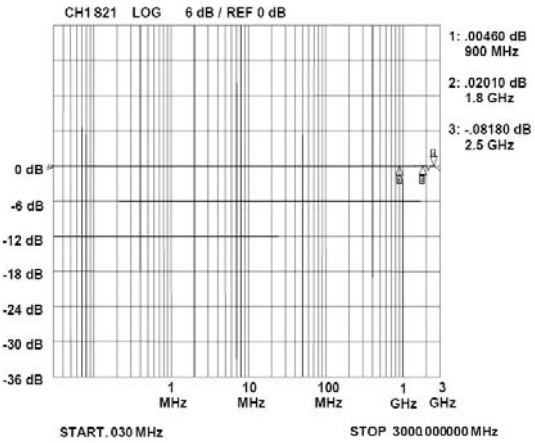
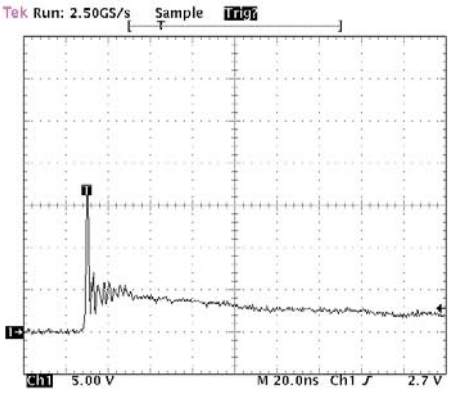
Insertion Loss S21 (Pin 1 to Pin 2)



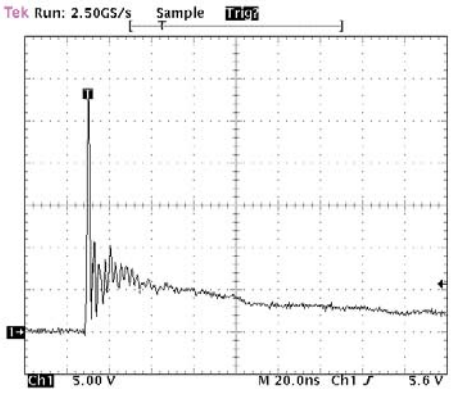
Insertion Loss S21 (Pin 1 or Pin 2 to Pin 3)



ESD Response (4kV Contact per IEC 61000-4-2)



ESD Response (8kV Contact per IEC 61000-4-2)



Analog Crosstalk