

X0531P

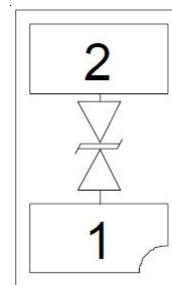
Features

- ◇ 84W (8/20 μ s) Peak Pulse Power
- ◇ Bidirectional ESD Protection
- ◇ SOD-882 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)
- ◇ Protects One Line
- ◇ Meet IEC61000-4-2 Level 4:
 - Contact Discharge: 30kV
 - Air Discharge: 30kV

Circuit Diagram



PIN Diagram



Applications

- ◇ Communication System
- ◇ Portable Instrumentation
- ◇ Audio and Video Equipment
- ◇ Computers and Peripherals
- ◇ Cellular Handsets and Accessories

Ordering information

Device	Package	Reel Size	Qty / Reel
X0531P	SOD-882	7 inch	10000

Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	84	W
IPP	Peak Pulse Current	6	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	30	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	30	kV
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	6		9.5	V
IR	Reverse Leakage Current	VRWM = 5V			0.5	μA
VC	Clamping Voltage	IPP = 1A (8/20μs)			9	V
VC	Clamping Voltage	IPP = 6A (8/20μs)			14	V
CJ	Capacitance	VR = 0V, f = 1MHz			15	pF

Typical Performance Curves

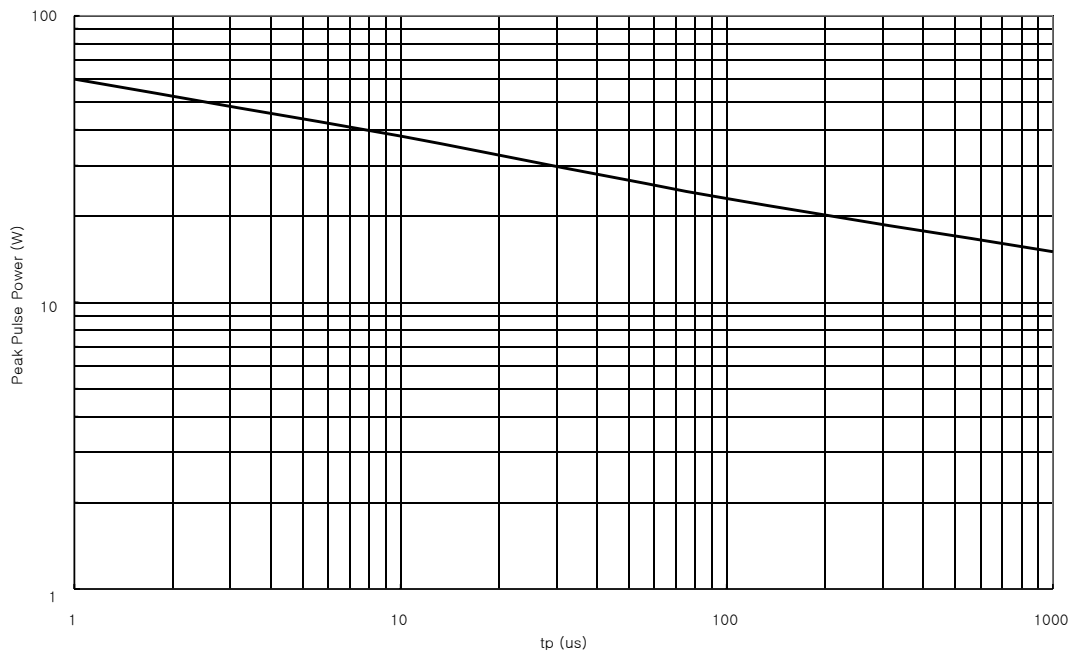


Figure 1. Peak Pulse Power Derating

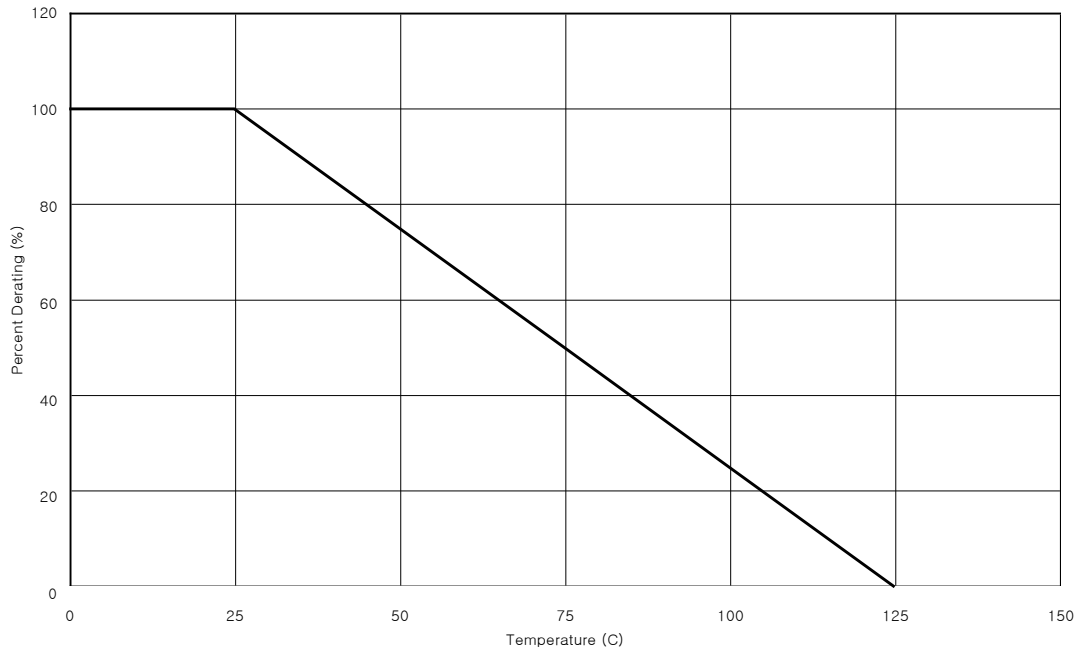


Figure 2. Peak Pulse Power Derating vs Temperature

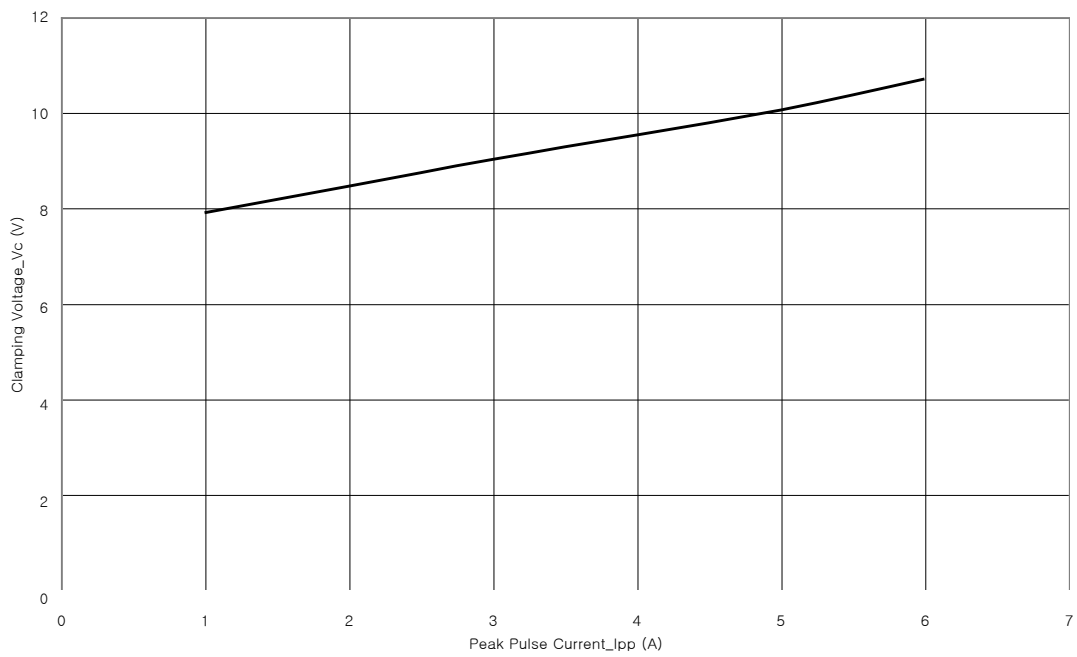


Figure 3. Peak Pulse Current vs Clamping Voltage

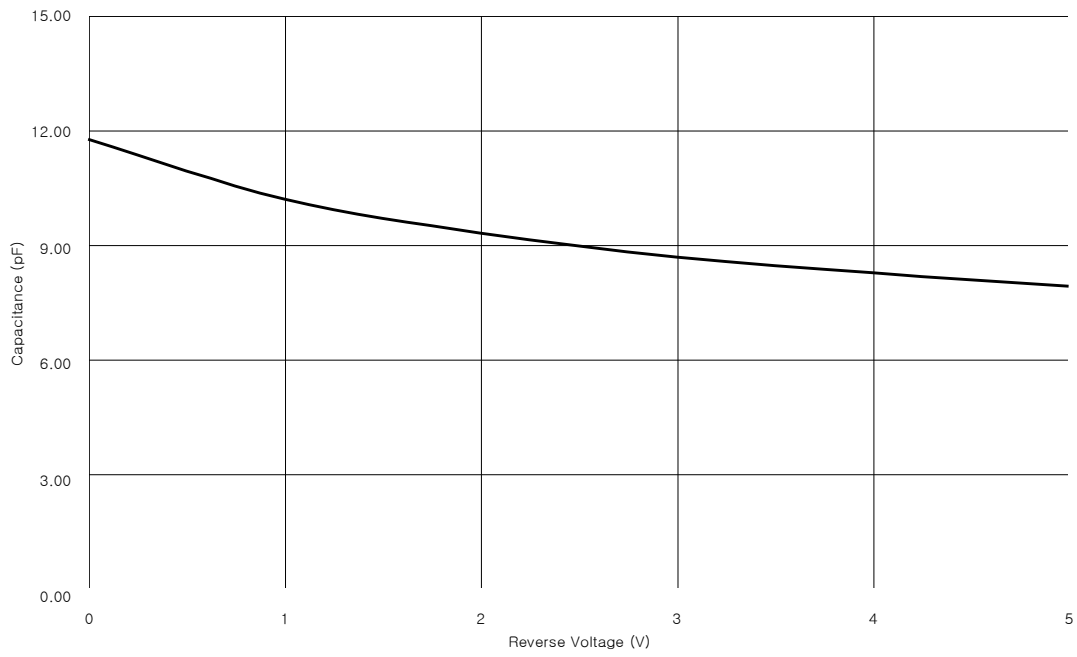
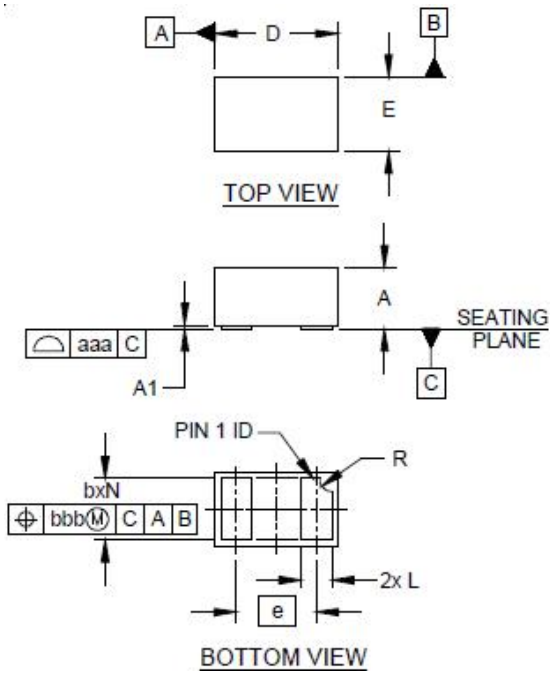


Figure 4. Reverse Voltage vs Capacitance

SOD-882 Dimension



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.016	.020	.022	0.40	0.50	0.55
A1	.000	.001	.002	0.00	0.03	0.05
b	.018	.020	.022	0.45	0.50	0.55
D	.035	.039	.043	0.90	1.00	1.10
E	.020	.024	.028	0.50	0.60	0.70
e	.026 BSC			0.65 BSC		
L	.008	.010	.012	0.20	0.25	0.30
R	.002	.004	.006	0.05	0.10	0.15
N	2			2		
aaa	.003			0.08		
bbb	.004			0.10		