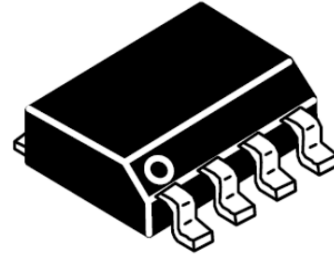


Features

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 15\text{kV}$
 - Contact discharge: $\pm 8\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 23A (8/20 μs)
- RoHS Compliant

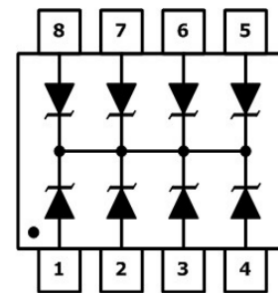
Dimensions SOP-08



Applications

- Instrumentation
- Microprocessor Based Equipment
- Test & Measurement Equipment
- Parallel & Serial Port Protection
- Audio / Video Inputs
- Microcontroller Input Protection

Pin Configuration



Mechanical Characteristics

- Package: SOP-08
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 2,500pcs
- Reel Size: 13 inch
- Device Marking: SMDA/05C-7

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	500	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 15	kV
ESD per IEC 61000-4-2 (Contact)		± 8	
Operating Temperature Range	T _J	-45 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			1	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)			8.7	V
Clamping Voltage	V_C	$I_{PP} = 23\text{A}$ (8 x 20 μs pulse)			22	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		110		pF

Typical Performance Characteristics (TA=25°C unless otherwise specified)

Figure 1. 8 x 20 μ s Waveform

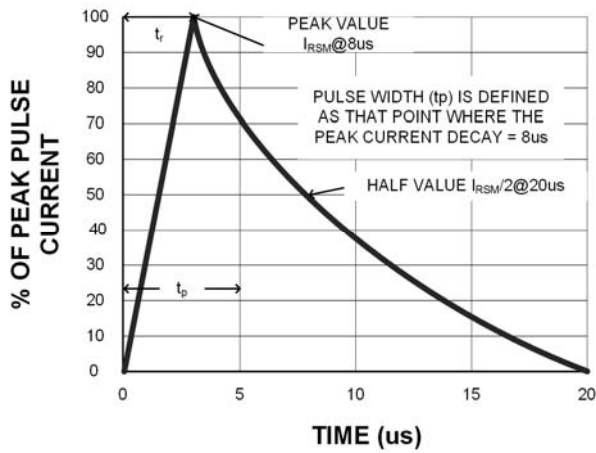


Figure 2. Power Derating Curve

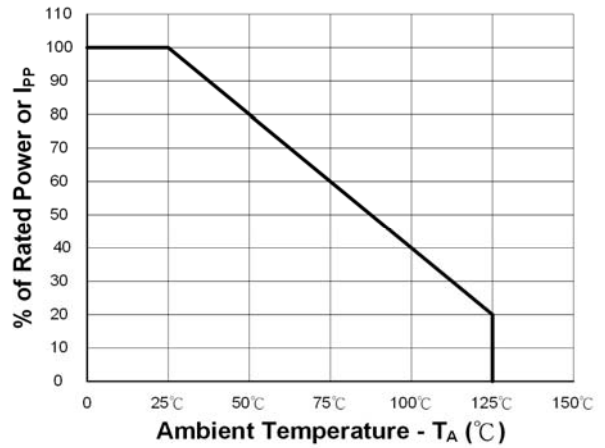


Figure 3. Clamping Voltage vs
Peak Pulse Current ($t_p=8/20\mu s$)

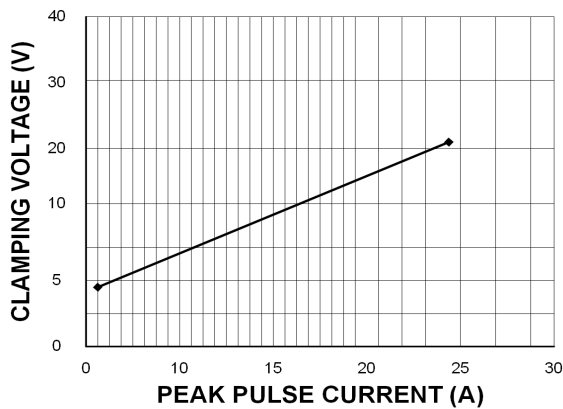


Figure 4. Typic Breakdown Voltage vs. Temperature

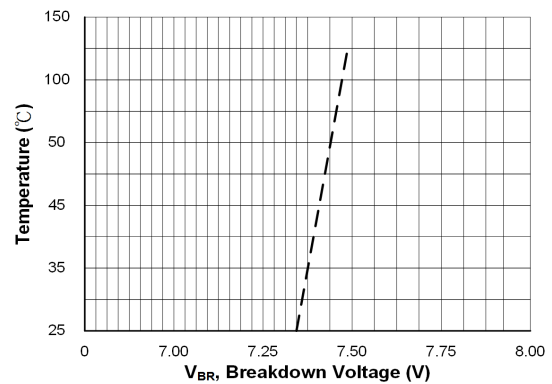
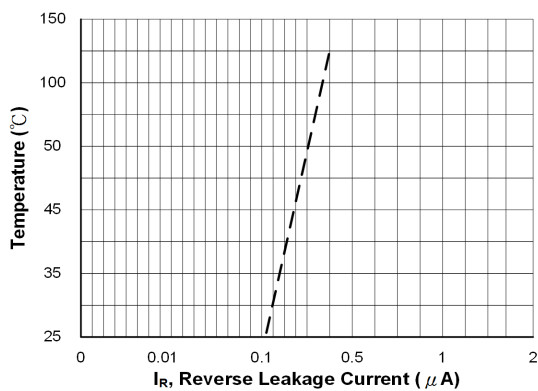
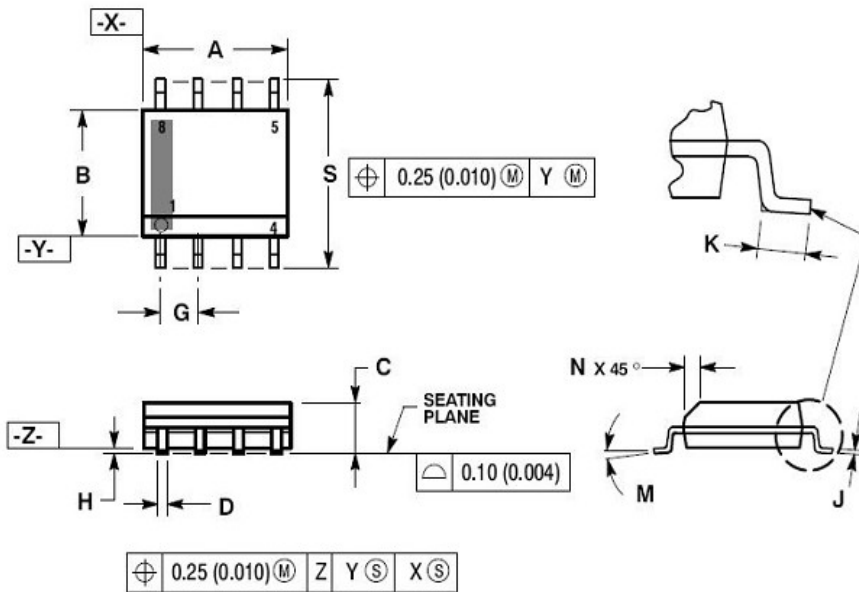


Figure 5. Typic Reverse Leakage vs. Temperature

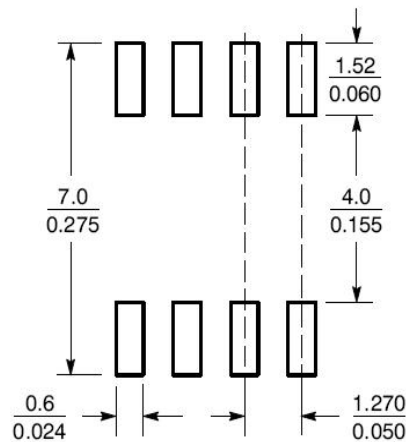


SOP-08 Package Outline Drawing



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.80	5.00	0.189	0.197
B	3.80	4.00	0.150	0.157
C	1.35	1.75	0.053	0.069
D	0.33	0.51	0.013	0.020
G	1.27 BSC		0.050 BSC	
H	0.10	0.25	0.004	0.010
J	0.19	0.25	0.007	0.010
K	0.40	1.27	0.016	0.050
M	0°	8°	0°	8°
N	0.25	0.50	0.010	0.020
S	5.80	6.20	0.228	0.244

Suggested Land Pattern



Dimensions in inches and (millimeters)

NOTICE

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