



JKSEMI
金开盛电子

SD03 thru SD36

500W Unidirectional TVS Diode

APPLICATIONS

- ✧ Cell Phone Handsets and Accessories.
- ✧ Microprocessor based equipment.
- ✧ Personal Digital Assistants (PDA's).
- ✧ Notebooks, Desktops, and Servers.
- ✧ Portable Instrumentation.
- ✧ Peripherals.
- ✧ Pagers.

IEC COMPATIBILITY

- ✧ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact).
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns).
- ✧ IEC61000-4-5 (Lightning) 24A (8/20 μs).

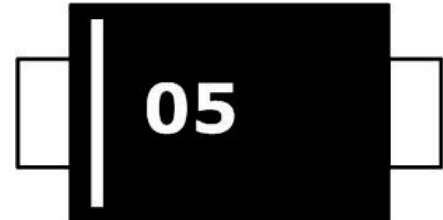
FEATURES

- ✧ 500 Watts Peak Pulse Power per Line ($t_p=8/20\mu\text{s}$).
- ✧ Protects one I/O or power line.
- ✧ Low clamping voltage.
- ✧ Working voltages: 3.3V, 5V, 12V, 15V, 24V, 36V.
- ✧ Low leakage current.

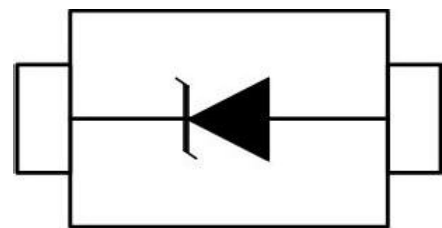
MECHANICAL CHARACTERISTICS

- ✧ JEDEC SOD-323 Package.
- ✧ Molding Compound Flammability Rating : UL 94V-O.
- ✧ Weight 5 Milligrams (Approximate).
- ✧ Quantity Per Reel : 3,000pcs.
- ✧ Reel Size : 7 inch.
- ✧ Lead Finish : Lead Free.

SOD-323



PIN CONFIGURATION

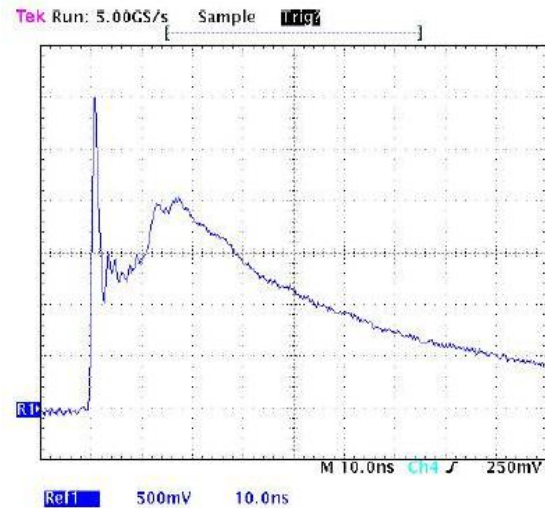
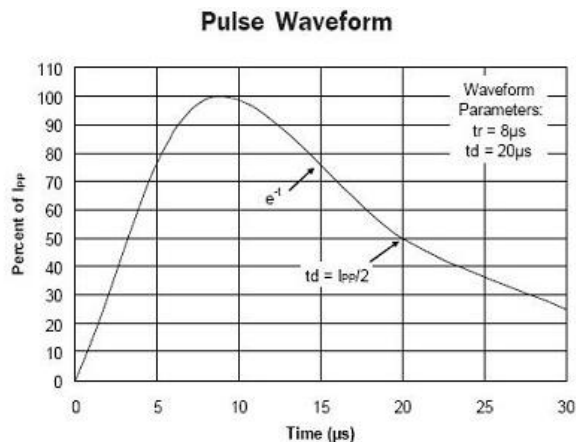


DEVICE CHARACTERISTICS
MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)

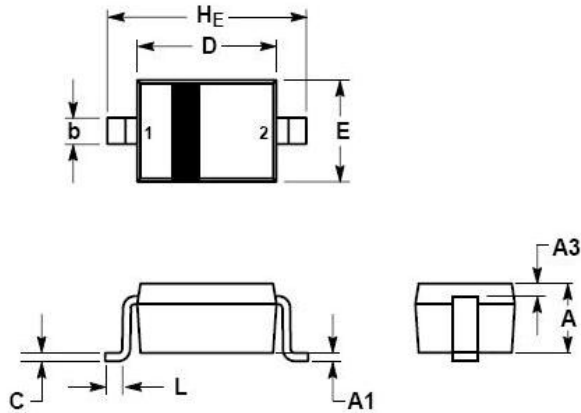
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20μs waveform)	P _{PP}	500	Watts
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature Range	T _J	-55 ~ 150	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)

PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _C	V _C		I _R	C _T
		(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(μA) (max.)	(pF) (max.)
SD03	03W	3.3	4	1	6.5	10.9	30	40	500
SD05	05	5	6	1	9.8	13.5	24	10	350
SD12	12W	12	13.3	1	19	25.9	15	1	150
SD15	15W	15	16.7	1	24	30	12	1	100
SD24	24W	24	26.7	1	43	48	8	1	90
SD36	36W	36	40	1	60	75	5	1	75

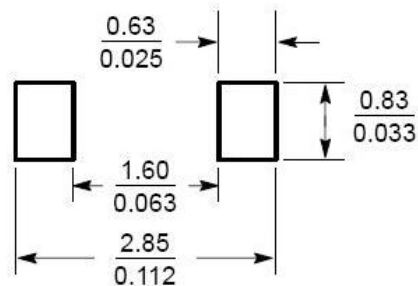
ESD Pulse Waveform (Per IEC 61000-4-2)


SOD-323 PACKAGE OUTLINE & DIMENSIONS



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.4	0.010	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.30	2.50	2.70	0.090	0.098	0.105

*** SOLDERING FOOTPRINT**



Website: <http://www.jksemi.com>

For additional information, please contact your local Sales Representative.

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