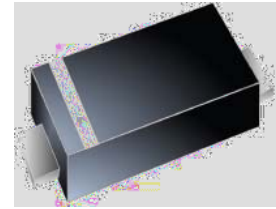


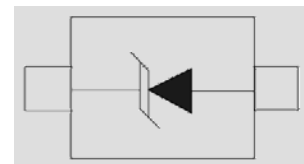


FEATURES

- ◇ Small body outline dimensions
0.063 x 0.032 (1.6x0.8 mm)
- ◇ Protects one uni-directional I/O line
- ◇ Low clamping voltage
- ◇ Working voltage: 18V
- ◇ Low leakage current
- ◇ RoHS compliant



SOD-523



Pin Configuration

MAIN APPLICATIONS

- ◇ Cell phone handsets and accessories
- ◇ Microprocessor based equipment
- ◇ Personal digital assistants (PDA's)
- ◇ Notebooks, desktops, and servers
- ◇ Portable instrumentation
- ◇ Peripherals
- ◇ Digital cameras

PROTECTION SOLUTION TO MEET

- ◇ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- ◇ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◇ IEC61000-4-5 (Lightning) 10A (8/20μs)

MECHANICAL CHARACTERISTICS

- ◇ SOD-523 package
- ◇ Molding compound flammability rating :UL 94V-0
- ◇ Quantity per reel : 8,000pcs
- ◇ Lead finish : lead free
- ◇ Marking code: 18

ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}C$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20 μ s waveform	P _{PP}	300	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	+/-30 +/-30	kV
Lead soldering temperature	T _L	260 (10 sec.)	
Operating junction temperature range	T _J	-55 to +125	
Storage temperature range	T _{STG}	-55 to +150	

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}C$)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V _{RWM}				18	V
Reverse breakdown voltage	V _{BR}	I _T =1mA	20			V
Reverse leakage current	I _R	V _{RWM} =18V		0.01	1	μ A

FIG.3: Pulse derating curve

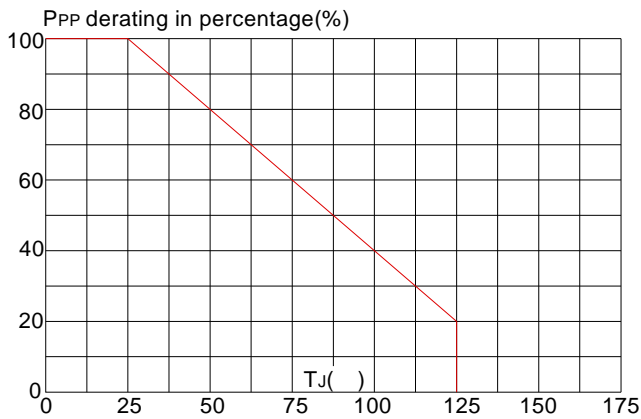
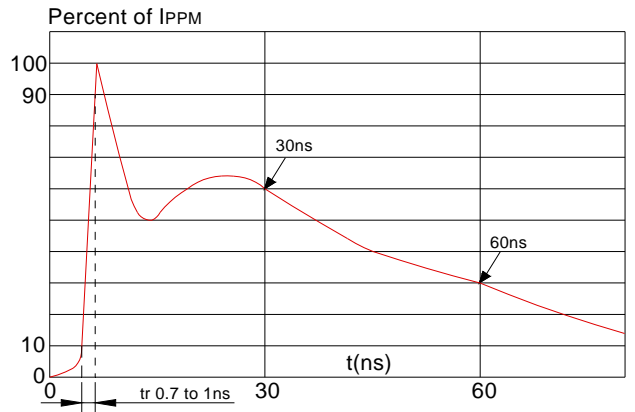
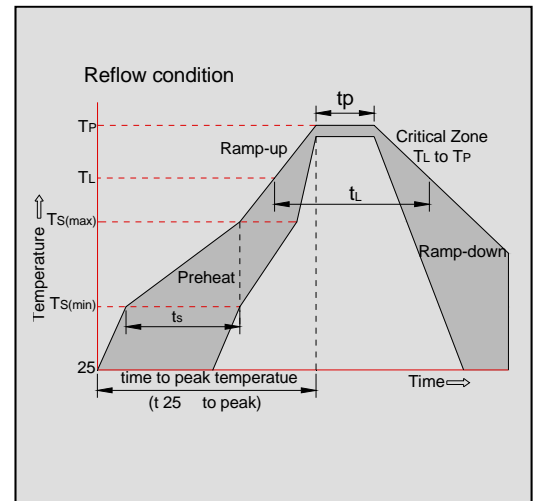


FIG.4: ESD clamping (20kV contact)

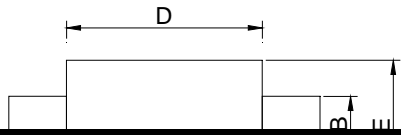


SOLDERING PARAMETERS

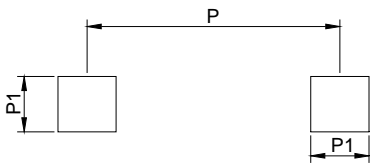
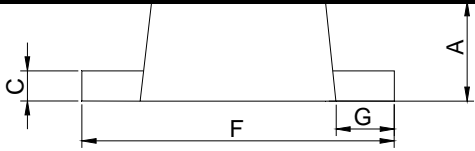
Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min (T _{s(min)})	+150
	-Temperature Max(T _{s(max)})	+200
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp (T _L)to peak)		3 /sec. Max
T _{s(max)} to T _L - Ramp-up Rate		3 /sec. Max
Reflow	-Temperature(T _L)(Liquidus)	+217
	-Temperature(t _L)	60-150 secs.
Peak Temp (T _P)		+260(+0/-5)
Time within 5 of actual Peak Temp (t _p)		20-40secs.
Ramp-down Rate		6 /sec. Max
Time 25 to Peak Temp (T _P)		8 min. Max
Do not exceed		+260



PACKAGE MECHANICAL DATA

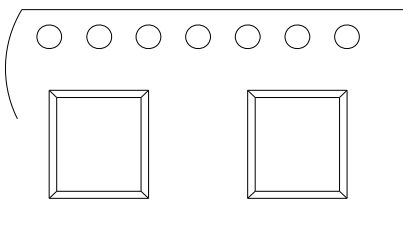


Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
			0.40	0.020	0.024	0.030



Land Pattern

TAPE AND REEL SPECIFICATION SOD 523



MARKING CODE

Part Number	Marking Code
JEU18D5P	


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