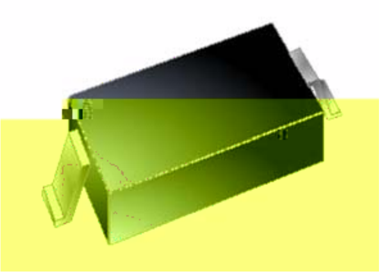
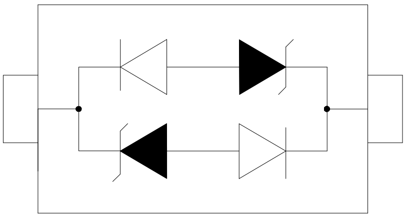
JEB24C-AU Low Capacitance TVS Diode Array

Rev.1.0

FEATURES



SOD-323



Pin Configuration

- 350 watts peak pulse power per line (t_P=8/20μs)
- Protects one bi-directional I/O line
- Low clamping voltage
- Working voltage:24V
- Low leakage current
- RoHS compliant
- AEC-Q101 qualified

MAIN APPLICATIONS

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA’s)
- Notebooks, desktops, and servers
- Portable instrumentation
- Peripherals
- USB interface

PROTECTION SOLUTION TO MEET

- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC61000-4-4 (EM ژ M˜ U a᷊ U a᷊ U a᷊ U a᷊ Ş E 61000-4-4 9 cofi Ծ ñΩ
- Quantity per reel: 3,000pcs
- Lead finish: lead free
- Marking code: CB

ABSOLUTE MAXIMUM RATINGS (T_A=25 , RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20μs waveform	P_{PP}	350	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 +150	
Storage temperature range	T_{STG}	-55 to +150	

ELECTRICAL CHARACTERISTICS (T_A=25)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				24	V
Reverse breakdown voltage	V_{BR}	I_T=1mA	26.7			V
Reverse leakage current	I_R	V_{RWM}=24V			1	μA
Clamping voltage	V_C	I_{PP}=1A,t_P=8/20μs			38	V
		I_{PP}= 9A,t_P=8/20μs			54	V
Junction capacitance	C_J	V_{RWM}=0V,f=1MHz		1.0	1.5	pF

RATINGS AND V-I CHARACTERISTICS CURVES (T_A=25 , unless otherwise noted)

FIG.1:V- I curve characteristics (Bi-directional)

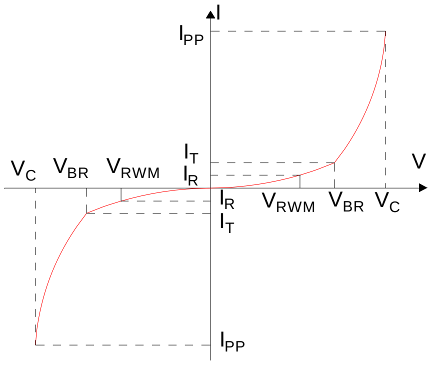


FIG.2: Pulse waveform (8/20μs)

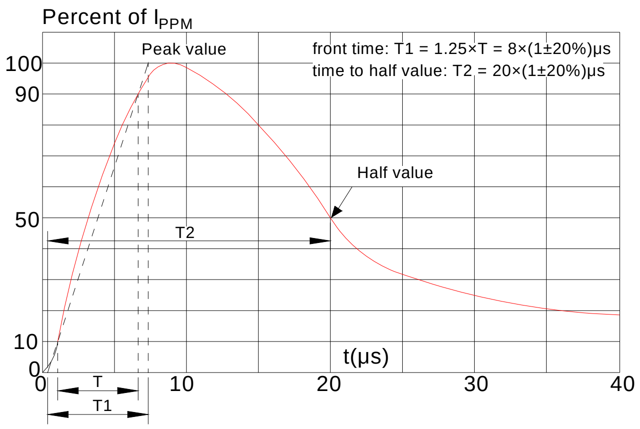


FIG.3: Pulse derating curve

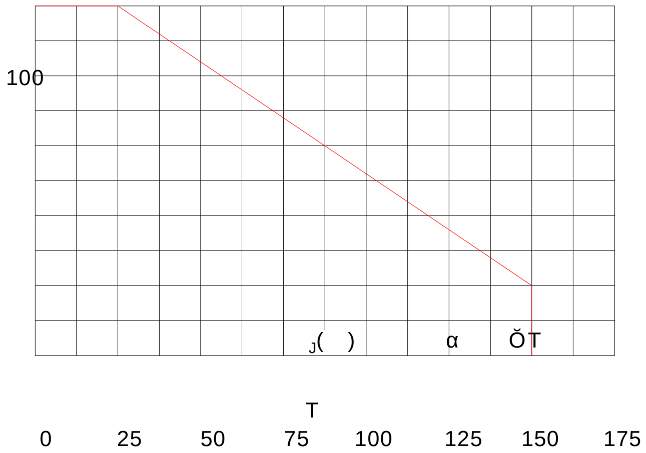
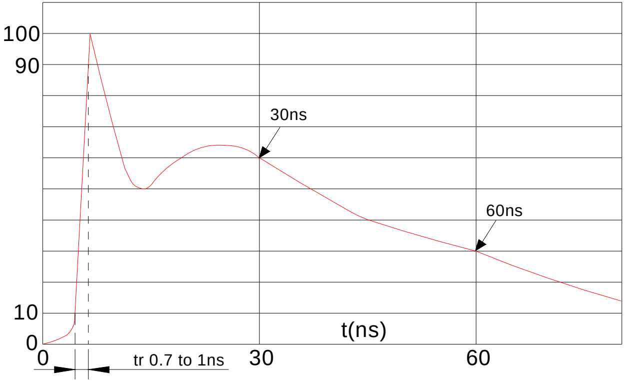
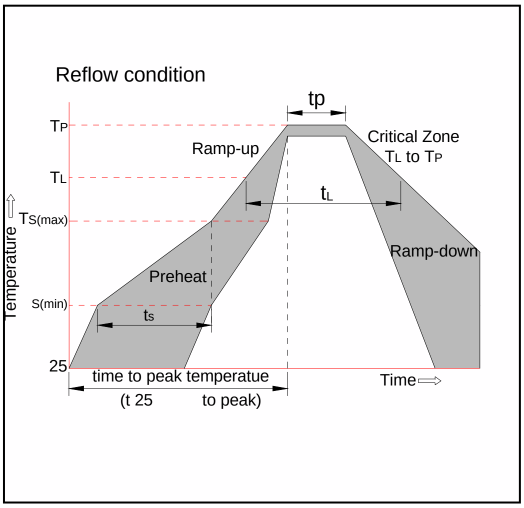


FIG.4: ESD clamping (30kV contact)

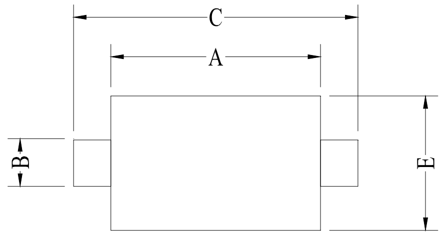


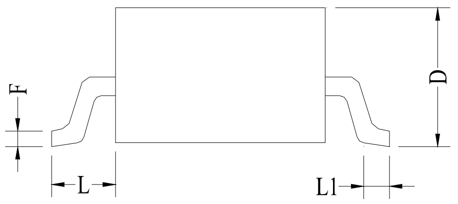
SOLDERING PARAMETERS

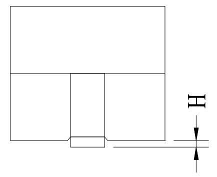
Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150
	-Temperature Max($T_{s(max)}$)	+200
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp (T_L)to peak)		3 /sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3 /sec. Max
Reflow	-Temperature(T_L)(Liquidus)	+217
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)
Time within 5 of actual Peak Temp (t_p)		20-4 secs.
Ramp-down Rate		6 /sec. Max
Time 25 to Peak Temp (T_P)		8 min. Max
Do not exceed		+260

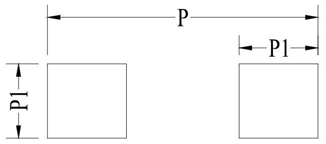


PACKAGE MECHANICAL DATA





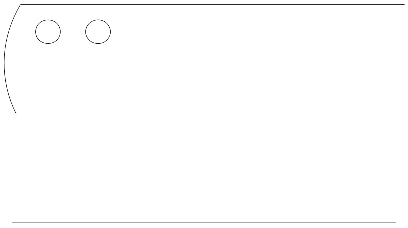




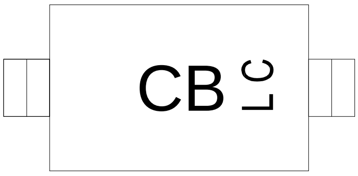
Land Pattern

Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
A	1.60	1.70	1.80	0.063	0.067	0.071
B	0.25	0.32	0.40	0.010	0.013	0.016
C	2.30	2.60	2.80	0.091	0.102	0.110
D	0.80	0.95	1.10	0.031	0.037	0.043
E	1.20	1.30	1.40	0.047	0.051	0.055
F	0.08	0.13	0.18	0.003	0.005	0.007
L	0.475REF			0.019REF		
L1	0.25	0.33	0.40	0.010	0.013	0.016
H	0.00	0.06	0.14	0.000	0.002	0.006
P	3.00			0.118		
P1	0.80			0.031		

TAPE AND REEL INFORMATION-SOD-323



MARKING CODE

Part Number	Marking Code
JEB24C-AU	

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