CYG WAYON
Let's make electronics safer!

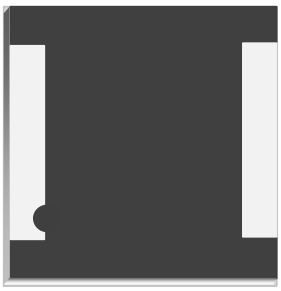
WSxxP10D(-B)

Order Code: WSxxP10D(-B)

Power Transient Voltage Suppressor

Features

- 1000 watts Peak Pulse Power (10/1000μs)
- Unidirectional and Bidirectional Protection
- Fast Response Time : Typically < 1ns
- Excellent Clamping Capability
- Built-in Strain relief
- Low inductance
- Low profile package



DFN3333-2L

Mechanical Characteristics

- Small DFN3333-2L package
- Molding compound flammability rating: UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

Applications

- I/O Interfaces
- Power lines
- Automotive and Telecommunication
- Computers &Consumer Electronics
- Industrial Electronics

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (tp =10/1000μs) (see Note1,2& 3)	P_{PPM}	1000	Watts
Peak pulse current (10/1000μs) (see Note2&3)	I_{PPM}	See Electrical Characteristics	A
Power Dissipation on infinite heat sink T_L = 50 °C (Fig4)	P_D	5.0	W
Operating Junction Temperature range	T_J	-55 to + 150	℃
Storage Temperature range	T_{STG}	-55 to + 150	℃

Note1: Peak Pulse Power Rating as Pulse Width ,per Fig1.

Note2: Peak Pulse Power or Current Derated above T_A=25℃ Per Fig. 2 and Non-Repetitive Current Pulse, Per Fig.3.

Note3: Mounted on 5.0x5.0mm^2 copper pad to each terminal.

Note4: 8.3ms Single Half Sine Wave or Equivalent Square Wave.

Electrical Characteristics

Part Number		Reverse Stand off Voltage V_{RWM}	Breakdown Voltage V_{BR}(Volts)@I_T		Test Current I_T	Maximum Clamping Voltage V_c@I_{PP}	Maximum Peak Pulse Current I_{pp}	Maximum Reverse Leakage I_R@V_{RWM}
UNI-POLAR	**BI-POLAR**	**(Volts)**	**MIN**	**MAX**	**(mA)**	**(Volts)**	**(Amps)**	**(μA)**
WS6.5P10D	WS6.5P10D-B	6.5	7.22	7.98	10	11.2	89.29	100
WS15P10D	WS15P10D-B	15	16.70	18.50	1	24.4	40.98	1
WS18P10D	WS18P10D-B	18	20.00	22.10	1	29.2	34.25	1
WS20P10D	WS20P10D-B	20	22.20	24.50	1	32.4	30.86	1
WS24P10D	WS24P10D-B	24	26.70	29.50	1	38.9	25.71	1
WS30P10D	WS30P10D-B	30	33.30	36.80	1	48.4	20.66	1
WS36P10D	WS36P10D-B	36	40.00	44.20	1	58.1	17.21	1
WS45P10D	WS45P10D-B	45	50.00	55.30	1	72.7	13.76	1
WS58P10D	WS58P10D-B	58	64.40	71.20	1	93.6	10.68	1

Typical Characteristics

Figure 1: Peak Pulse Power Rating Curve

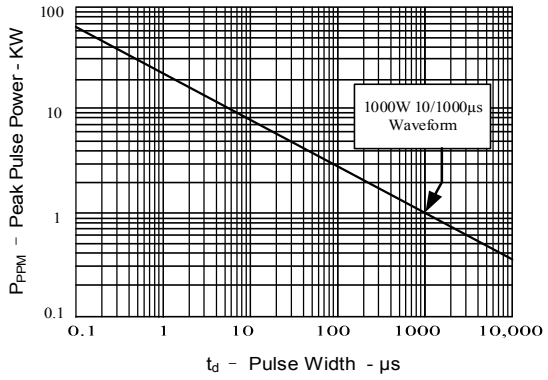


Figure 2: Pulse Derating Curve

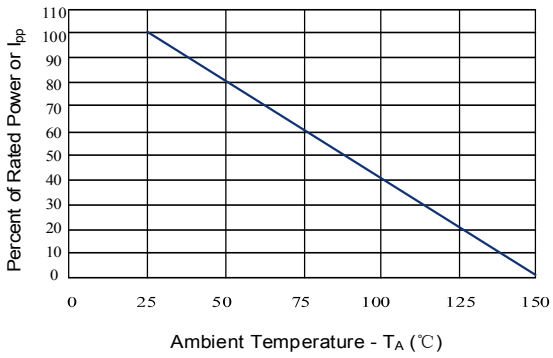


Figure 3: Pulse Waveform

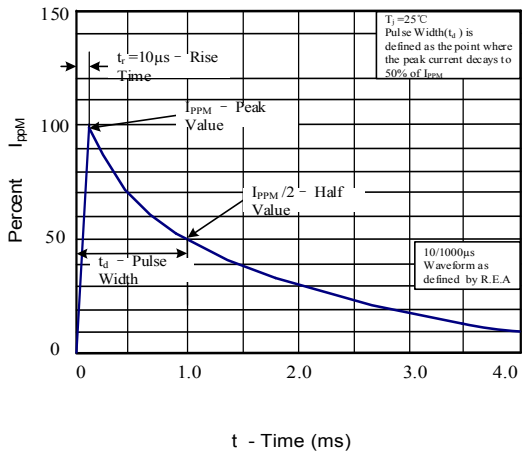
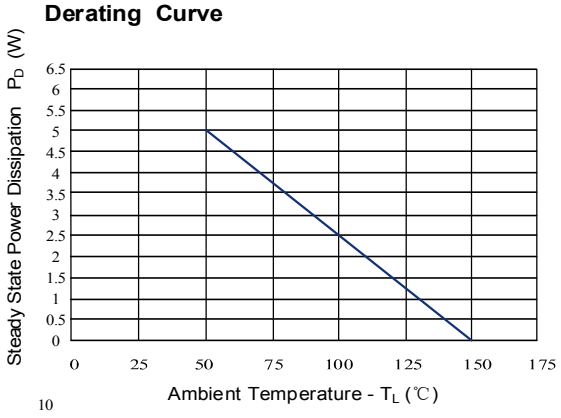
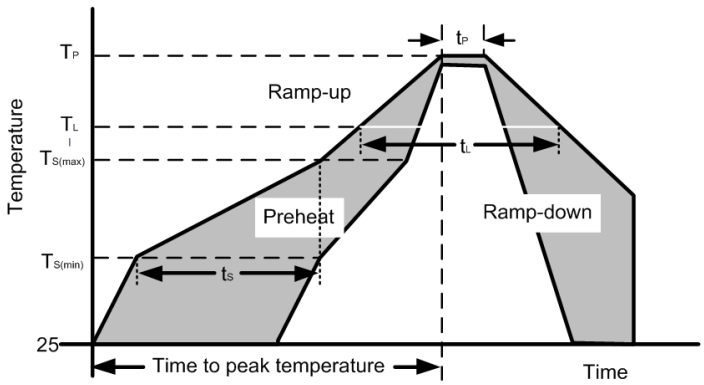


Figure 4: Steady State Power Dissipation Derating Curve



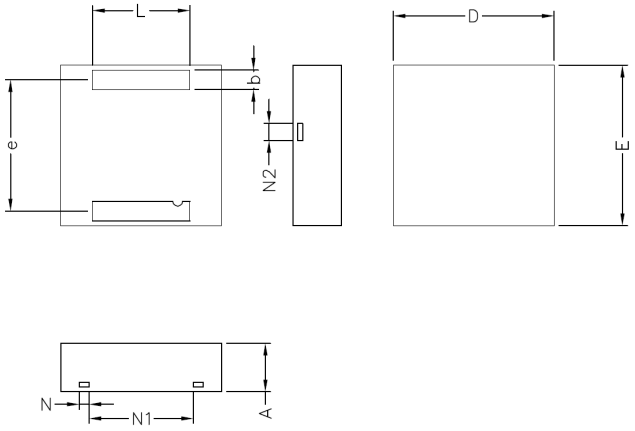
Recommended Soldering Parameters

Reflow Condition		
Pre Heat	Temp. Min ($T_{s(min)}$)	150°C
	Temp. Max ($T_{s(max)}$)	200°C
	Time (Min to Max) (t_s)	60-90 s
Average ramp up rate (Liquidus Temp.) (T_L) to peak		3°C/s max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/s max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60-150 s
Peak Temperature (T_P)		260+0/-5 °C
Time within actual peak Temperature (t_p)		20-40 s
Ramp-down Rate		5°C/s max
Time 25°C to peak Temperature (T_P)		8 mininutes Max.
Do not exceed		260°C



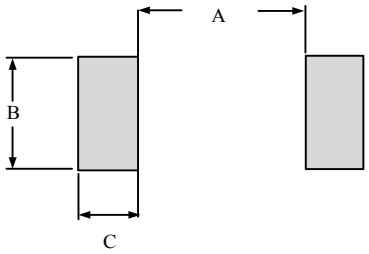
Product Dimensions

Ref.（mm）	Min.	Typ.	Max.
A	0.95	1.00	1.05
b	0.35	0.40	0.45
D	3.25	3.30	3.35
e		2.70BSC	
E	3.25	3.30	3.35
L	1.95	2.00	2.05
N	0.15	0.20	0.25
N1	2.09	2.14	2.19
N2	0.30	0.35	0.40

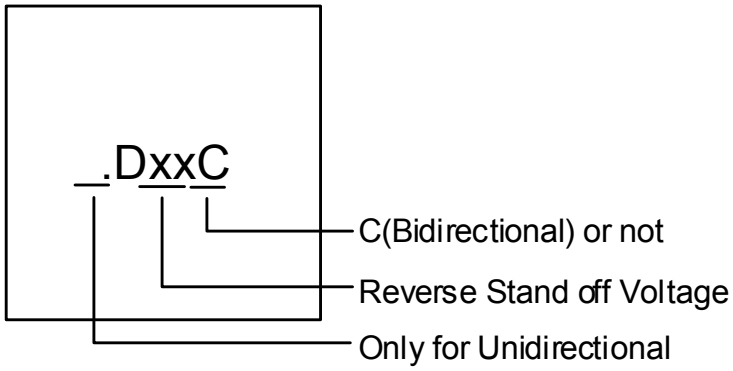


Recommended Solder Pad Layout

Ref.(mm)	MILLIMETERS
A	2.70
B	2.20
C	0.49



Part Marking System



Package Information

5K Pcs/Reel

Contact Information

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