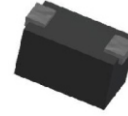


CPDWZ24VMSBP-HF

RoHS Device

Halogen Free



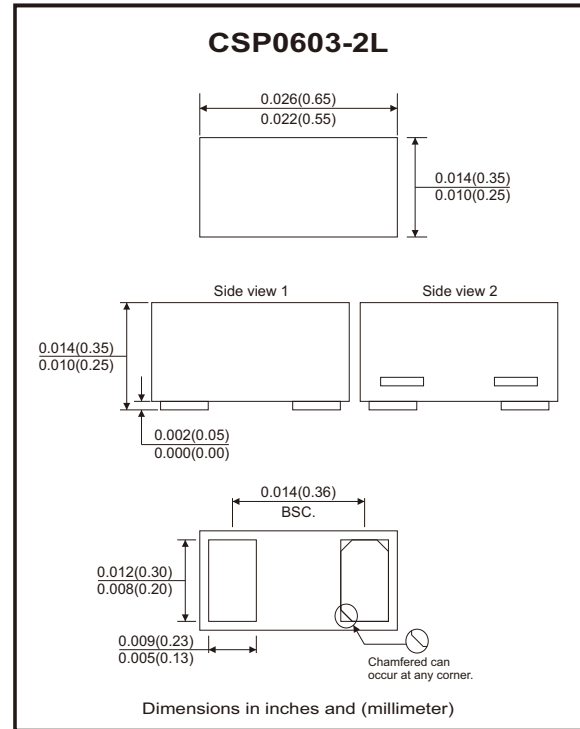
Features

- Protects I/O Port.
- Low clamping voltage.
- Low leakage.
- Low capacitance.
- Solid-state punch-through TVS process technology.

Mechanical data

- Case: CSP0603-2L package.
- Case material: Molded plastic. UL flammability.
- Mounting position: Any.

Circuit Diagram



Maximum Rating (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu s$ waveform	P_{PPP}	20	W
ESD rating per IEC 61000-4-2	Contact Air	ESD	± 15	KV
Lead soldering temperature		T_L	260 (10 sec.)	°C
Operating temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C
Lead solder temperature-maximum (10 second duration)		T_L	260	°C

Note: Non-repetitive current pulse, per Figure 1.

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse working voltage		V_{RWM}			24	V
Breakdown voltage	$I_T = 1mA$	V_{BR}	25			V
Reverse leakage current	$V_{RWM} = 24V$	I_R			1	μA
Clamping voltage	$I_{PP} = 1A, t_p = 8/20\mu s$	V_C		4	5	V
	$I_{PP} = 4A, t_p = 8/20\mu s$	V_C		5	6	V
Clamping voltage	$TLP = 16A, t_p = 0.2/100ns$	V_C		5.6		V
Junction capacitance	$V_R = 0V, f = 1MHz$	C_J		0.4	0.6	pF

Note: Junction capacitance is measured in $V_R=0, f=1MHz$.

Typical Rating and Characteristic Curves (CPDWZ24VMSBP-HF)

Fig.1 - Peak Pulse Power vs. Pulse Time

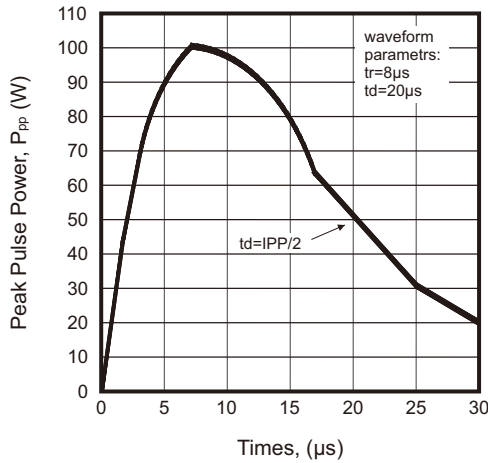


Fig.2 - Non-Repetitive Peak Power vs. Pulse Time

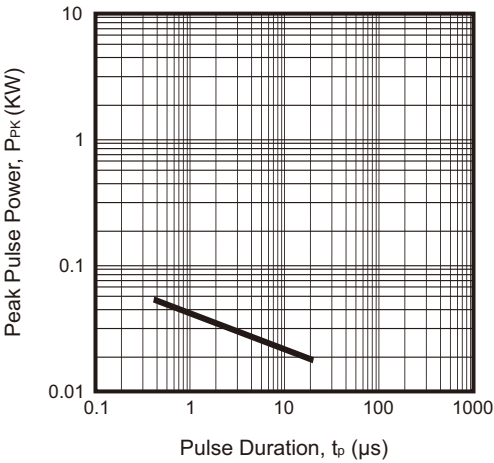


Fig.3 - Power Derating Curve

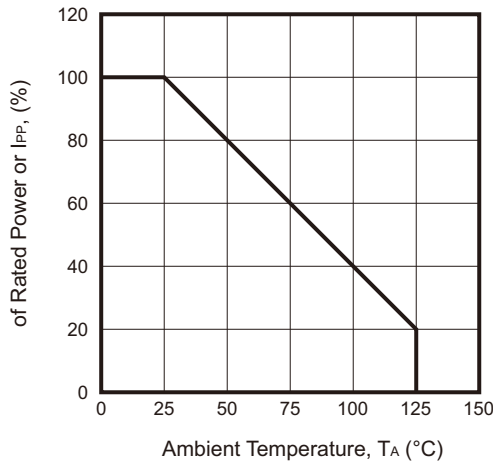


Fig.4 - TLP- Positive Pulse

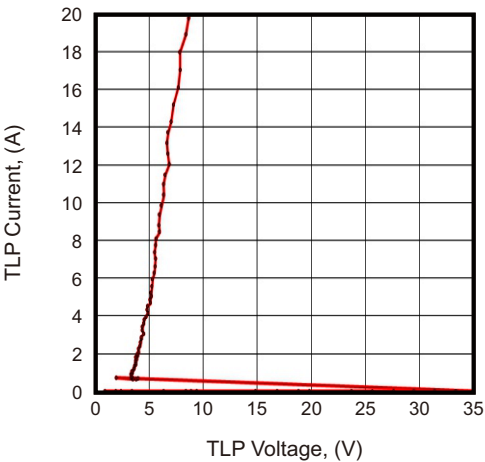
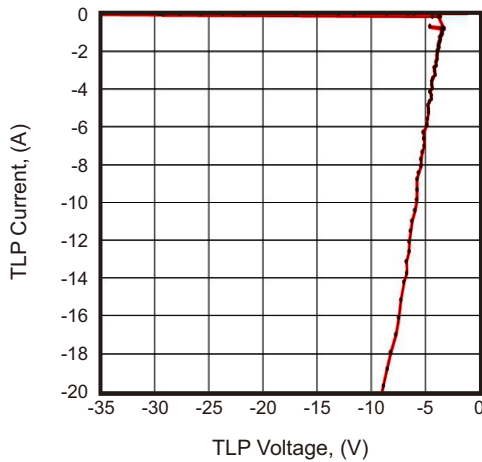
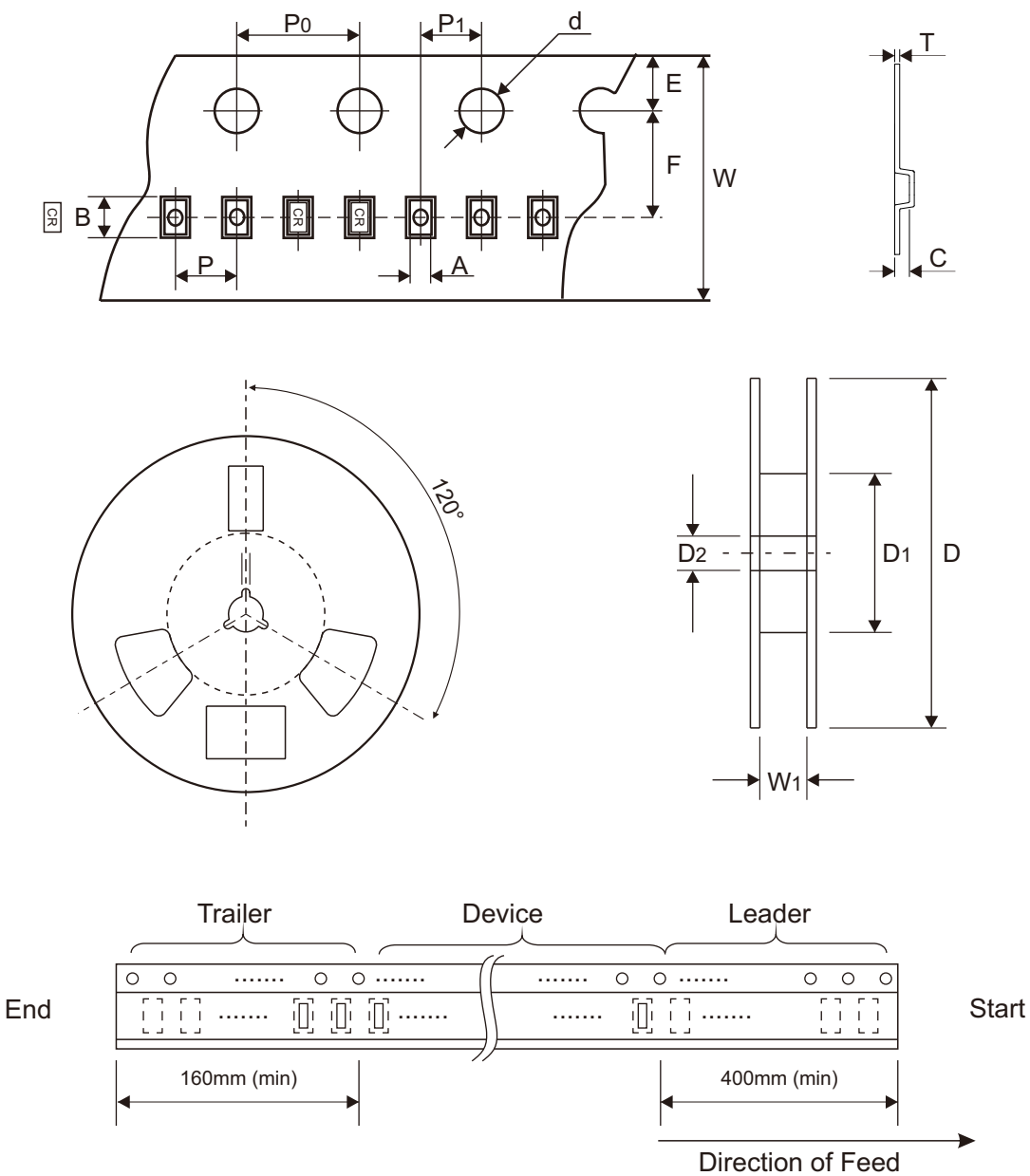


Fig.5 - TLP- Negative Pulse



Reel Taping Specification



CSP0603-2L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.38 ± 0.15	0.68 ± 0.15	0.36 ± 0.10	1.55 ± 0.15	178.00 ± 1.00	55.00 ± 1.00	13.00 ± 1.00
	(inch)	0.015 ± 0.006	0.027 ± 0.006	0.014 ± 0.004	0.061 ± 0.006	7.008 ± 0.039	2.165 ± 0.039	0.512 ± 0.039

CSP0603-2L	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.20	3.50 ± 0.20	2.00 ± 0.20	4.00 ± 0.20	2.00 ± 0.20	0.18 ± 0.06	8.00 ± 0.30	13.00 ± 1.00
	(inch)	0.069 ± 0.008	0.138 ± 0.008	0.079 ± 0.008	0.157 ± 0.008	0.079 ± 0.008	0.007 ± 0.002	0.315 ± 0.012	0.512 ± 0.039

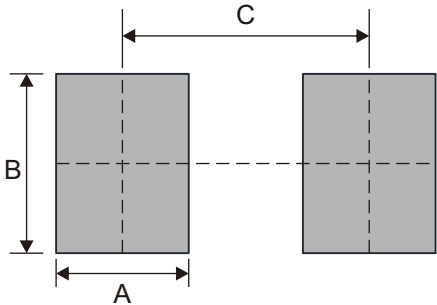
Marking Code

Part Number	Marking Code
CPDWZ24VMSBP-HF	CR



Suggested P.C.B. PAD Layout

SIZE	CSP0603-2L	
	(mm)	(inch)
A	0.22	0.009
B	0.30	0.012
C	0.40	0.016



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
CSP0603-2L	10,000	7