

CPDQA5V0P-HF

RoHS Device
Halogen Free



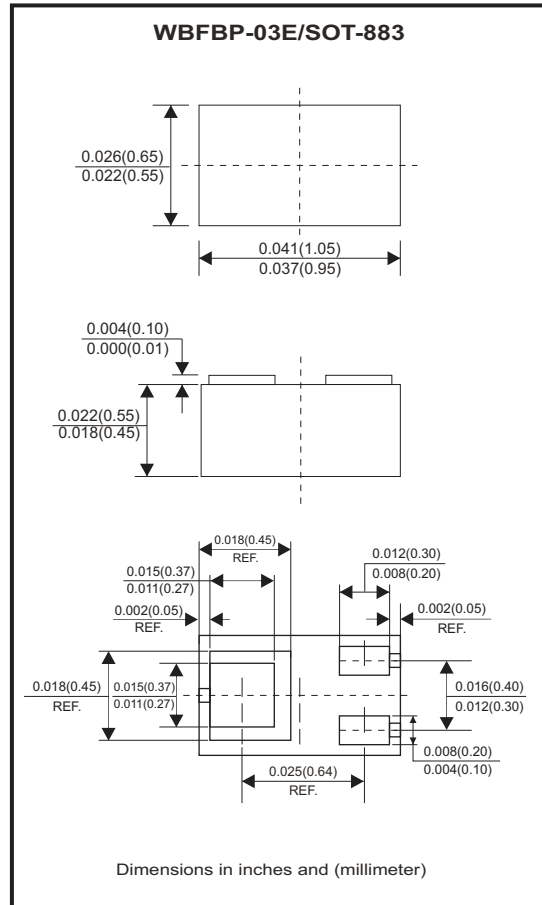
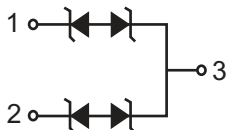
Features

- IEC61000-4-2 Level 4 ESD Protection.
- Bi-directional ESD protection of one line.
- Fast response time.
- Low reverse stand-off voltage: 5V
- Low reverse clamping voltage.
- Low leakage current.
- Low capacitance:3pF(Typ.)

Mechanical data

- Case: WBFBP-03E/SOT-883 molded plastic encapsulate diodes.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	V _{ESD} ⁽¹⁾	±15	kV
ESD per IEC 61000-4-2 (Contact)		±8	
JESD22-A114-B ESD voltage ESD voltage		±16 ±0.4	
Peak pulse power	P _{PP} ⁽²⁾	39	W
Peak pulse current	I _{PP} ⁽²⁾	3	A
Lead solder temperature	T _L	260	°C
Junction temperature range	T _J	-40 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Notes: 1. Device stressed with ten non-repetitive ESD pulses.

2. Non-repetitive current pulse 8/20µs exponential decay waveform according to IEC61000-4-5.

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand off voltage		$V_{RWM}^{(1)}$			5	V
Reverse leakage current	$V_{RWM} = 5\text{ V}$	I_R			1	μA
Breakdown voltage	$I_T = 1\text{ mA}$	$V_{(BR)}$	5.6		8	V
Clamping voltage	$I_{PP} = 3\text{ A}$	$V_C^{(2)}$			13	V
Junction capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	C_J		3		pF

Notes: 1. Other voltages available upon request.

2. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

RATING AND CHARACTERISTIC CURVES (CPDQA5V0P-HF)

Fig.1 - 8/20 μs Peak Pulse Current Wave Form Acc. IEC 61000-4-5

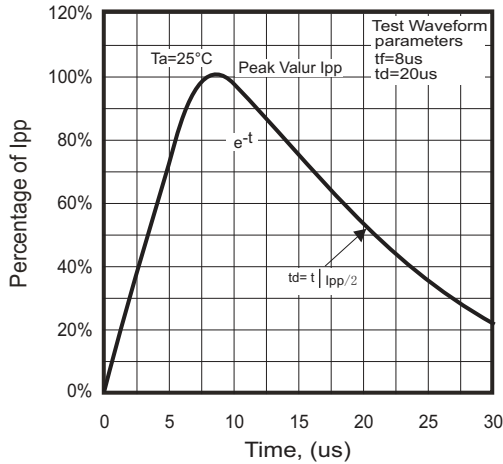


Fig.2 - Capacitance Characteristics

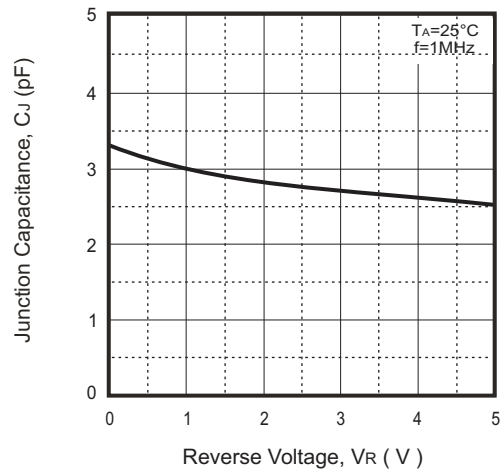


Fig.3 - V_C — I_{PP}

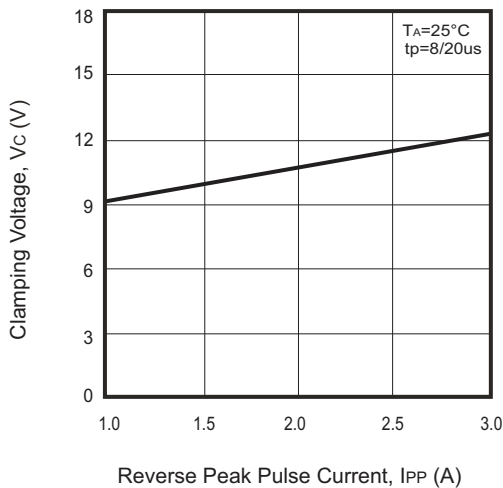
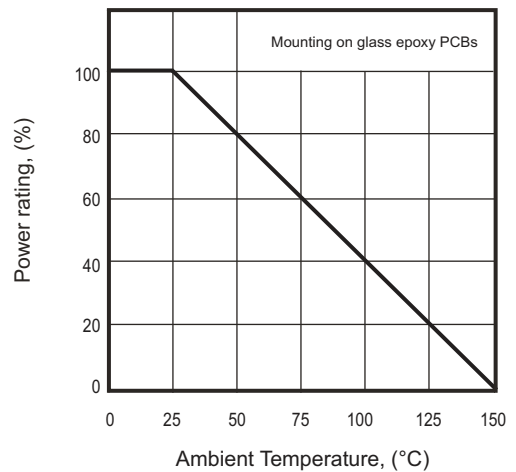
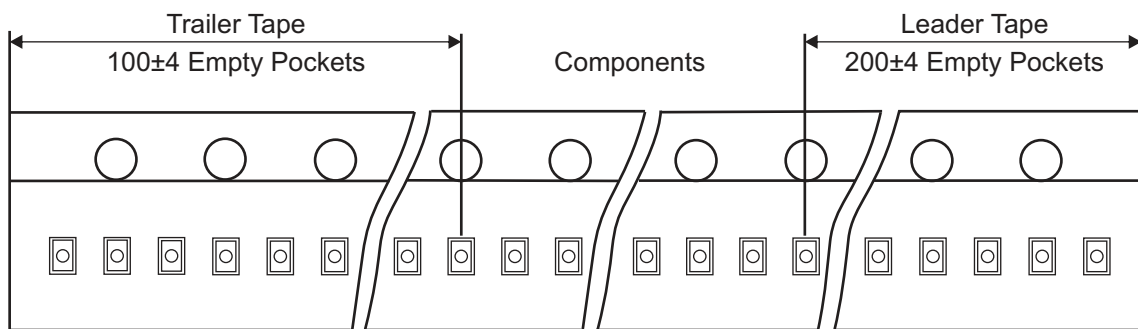
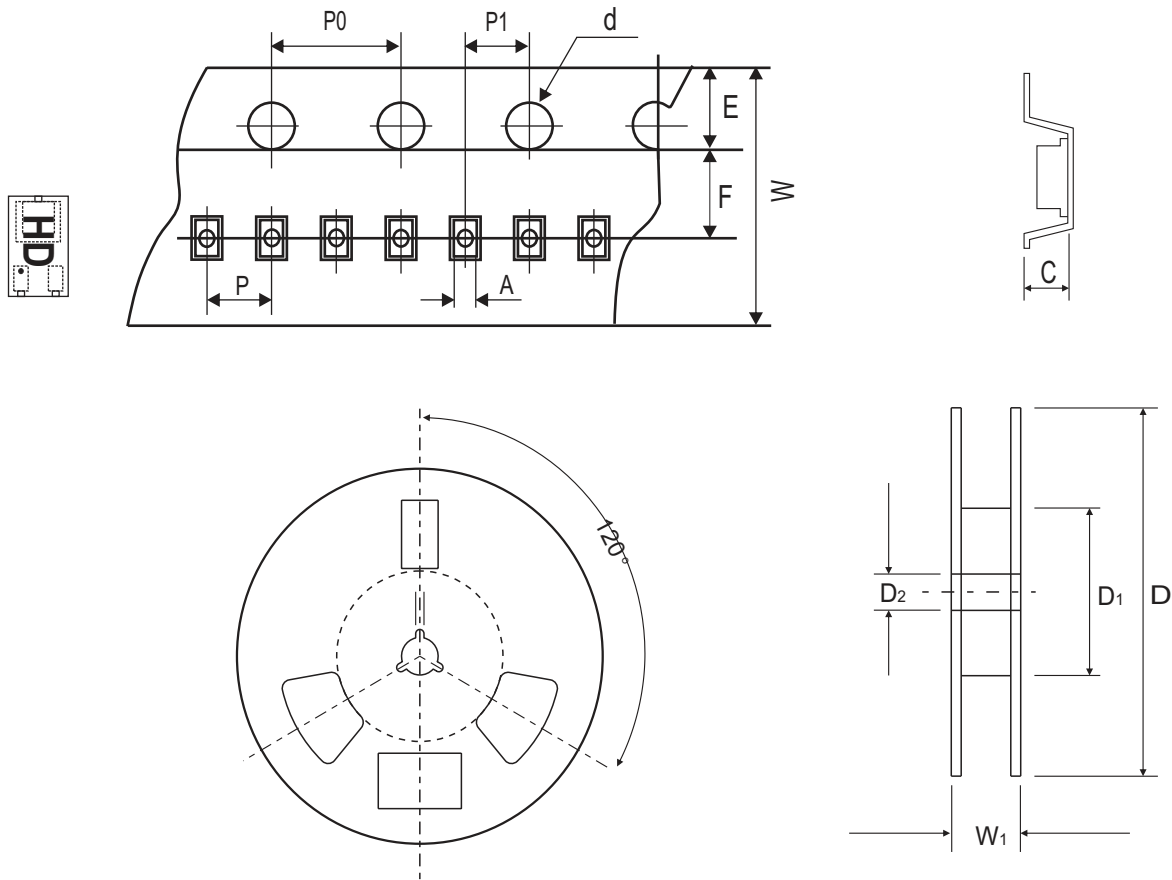


Fig. 4 - Power Rating Derating Curve



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D ₁	D ₂
WBFBP-03E (SOT-883)	(mm)	0.66 + 0.04 - 0.01	1.15 ± 0.05	0.66 ± 0.05	1.50 + 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.026 + 0.002 - 0.0004	0.045 ± 0.002	0.026 ± 0.002	0.059 + 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
WBFBP-03E (SOT-883)	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.05	2.00 ± 0.05	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.002	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.484 ± 0.039

Company reserves the right to improve product design , functions and reliability without notice.

REV:B

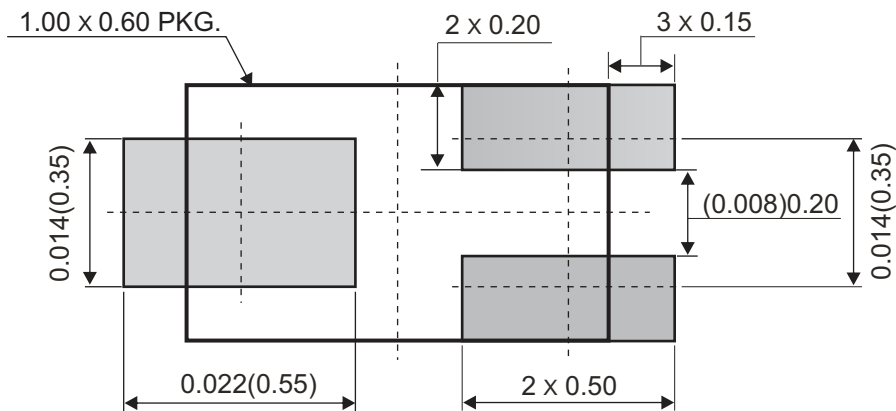
Marking Code

Part Number	Marking Code
CPDQA5V0P-HF	HD.



HD = Device code
 Solid dot = Pin 1 indicator

Suggested PAD Layout



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
WBFBP-03E	10,000	7