FEATURES:

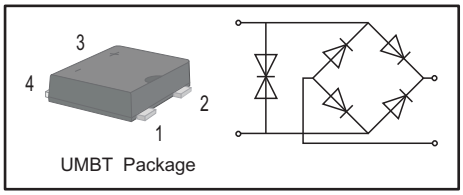
- Lower clamping voltage
- Green Molding Compound
  (No Halogen and Antimony)
- Glass Passivated Chip Junction
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: UMBT
- Terminals: Solderable per
  MIL-STD-750, Method 2026
- Approx. Weight: 60mg/0.0021oz

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



UMBT Package

Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	BP43CUM10B-10	Units
Average Rectified Output Current	I_O	1.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30	A
Maximum Forward Voltage at 1.0 A	V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage (@VR=1000V) @T_A=25 °C @T_A=125 °C	I_R	5 40	μA
Typical Junction Capacitance (Note1)	C_j	7	pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	45 15 25	C°/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Maximum Ratings and Thermal Characteristics(TA = 25°C unless otherwise specified)

Parameter of TVS	Symbol	BP43CUM10B-10	Unit
Maximum allowable continuous AC voltage at 50-60Hz	V_{RMS}	26	V
Breakdown voltage	V_{BR}	40.9~45.2	V
Maximum allowable continuous DC voltage	V_{DC}	36.8	V
Maximum allowable clamping voltage	V_C	59.3	V
Maximum peak pulse current	I_{pp}	11.2	A
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

NOTES:
1. The breakdown voltage was measured at 1mA
2. The clamping voltage was measured at 10/1000μs standard current
3. The peak pulse current was tested at 10/1000μs waveform

Fig.1 Average Rectified Output Current Derating Curve

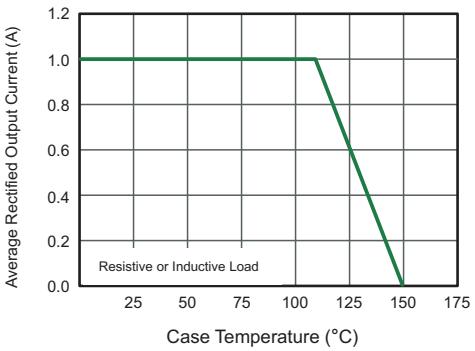


Fig.2 Typical Reverse Characteristics

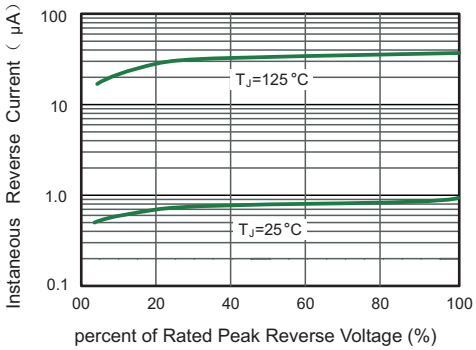


Fig.3 Typical Forward Characteristic

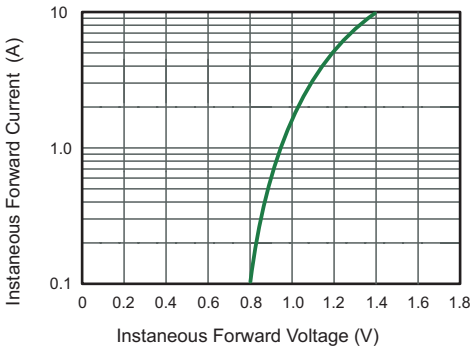


Fig.4 Typical Junction Capacitance

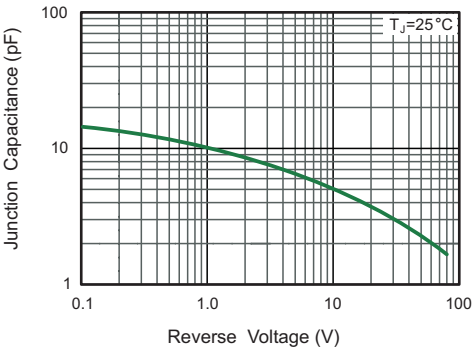


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

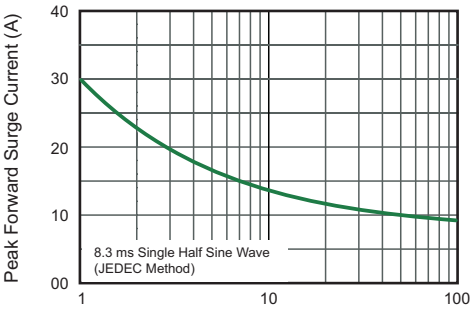


Fig.6 Peak Pulse Power Rating Curve

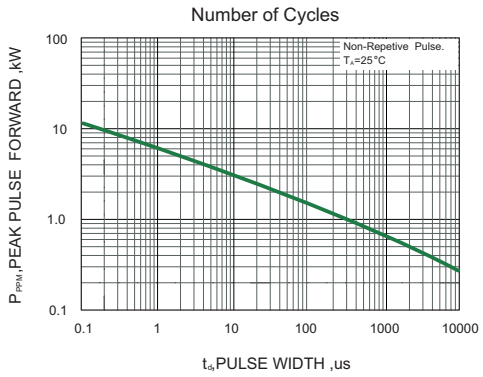


Fig.7 Forward Current Derating Curve

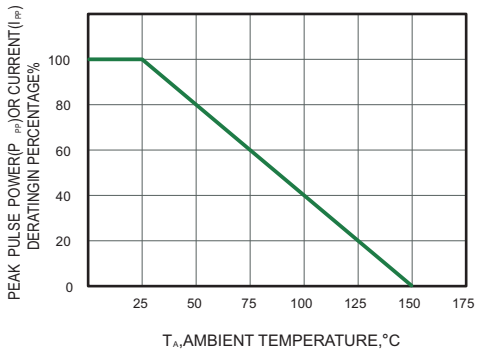
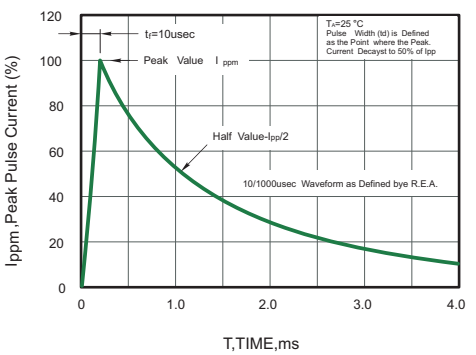
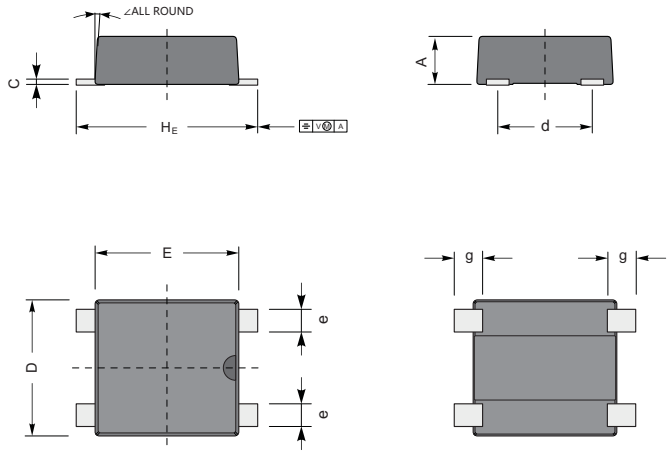


Fig.8 Pulse Waveform



PACKAGE OUTLINE

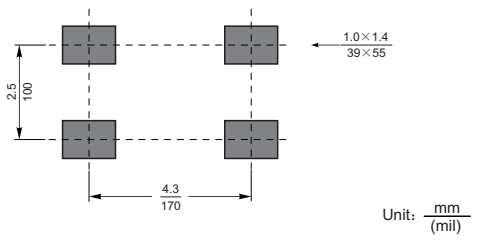
Plastic surface mounted package; 4 leads UMBT



UMBT mechanical data

UNIT		A	C	D	E	H_E	g	d	e	∠
mm	max	1.8	0.20	3.8	4.0	5.1	0.82	2.7	0.70	7°
	min	1.6	0.12	3.4	3.6	4.6	0.51	2.3	0.51	
mil	max	71	7.9	150	157	201	32	106	28	
	min	63	4.7	134	142	181	20	91	20	

The recommended mounting pad size



Marking

Type number	Marking code
BP43CUM10B-10	BP43C10

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