



FEATURES:

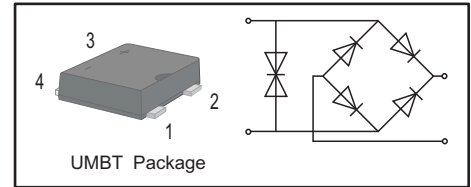
- Lower clamping voltage
- Green Molding Compound
(No Halogen and Antimony)
- Glass Passivated Chip Junction
- High Surge Current Capability
- Designed for Surface Mount Application

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 (-)



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	BP47CUM10B-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 (@ $V_R=1000V$)	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	$^{\circ}C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}C$

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	BP47CUM10B-10	Unit
Maximum allowable continuous AC voltage at 50-60Hz	V_{RMS}	28	V
Breakdown voltage	V_{BR}	44.7~49.4	V
Maximum allowable continuous DC voltage	V_{DC}	40.2	V
Maximum allowable clamping voltage	V_C	64.8	V
Maximum peak pulse current	I_{pp}	10.2	A
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}C$

NOTES:

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



Fig.1 Average Rectified Output Current Derating Curve

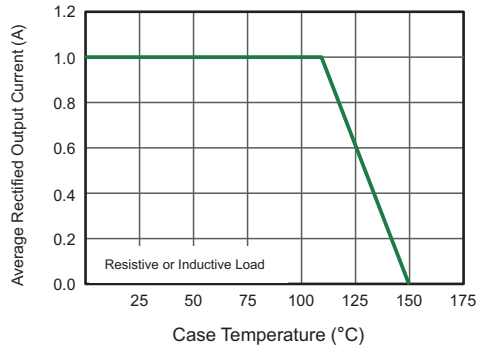


Fig.2 Typical Reverse Characteristics

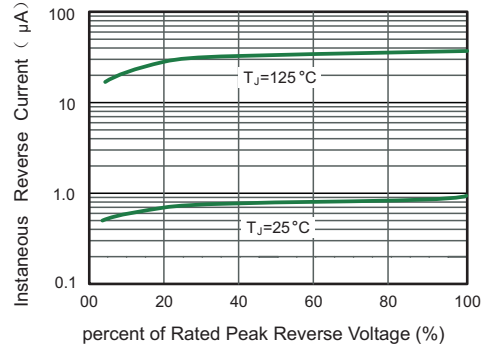


Fig.3 Typical Forward Characteristic

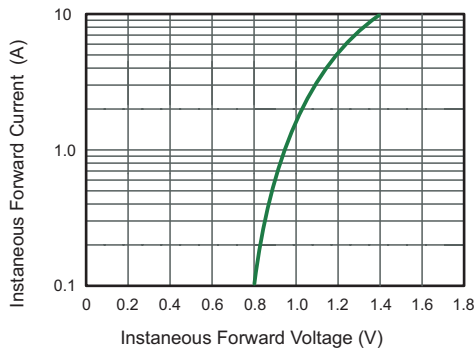


Fig.4 Typical Junction Capacitance

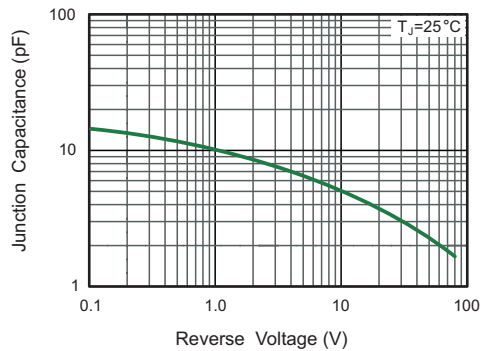


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

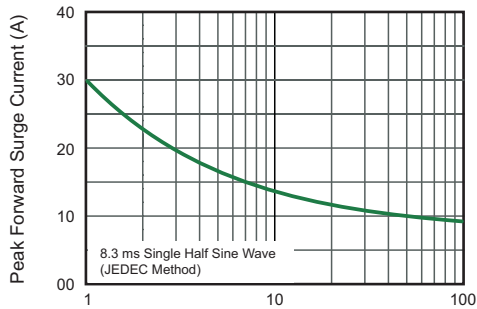


Fig.6 Peak Pulse Power Rating Curve

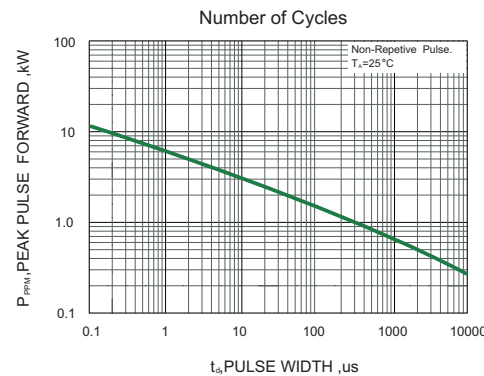


Fig.7 Forward Current Derating Curve

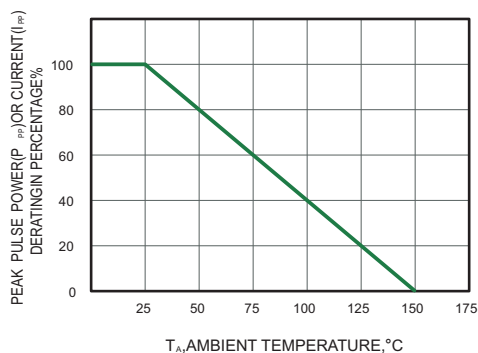
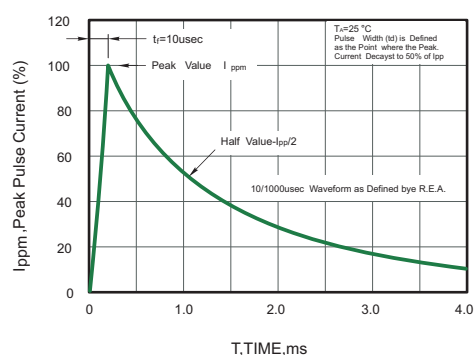


Fig.8 Pulse Waveform

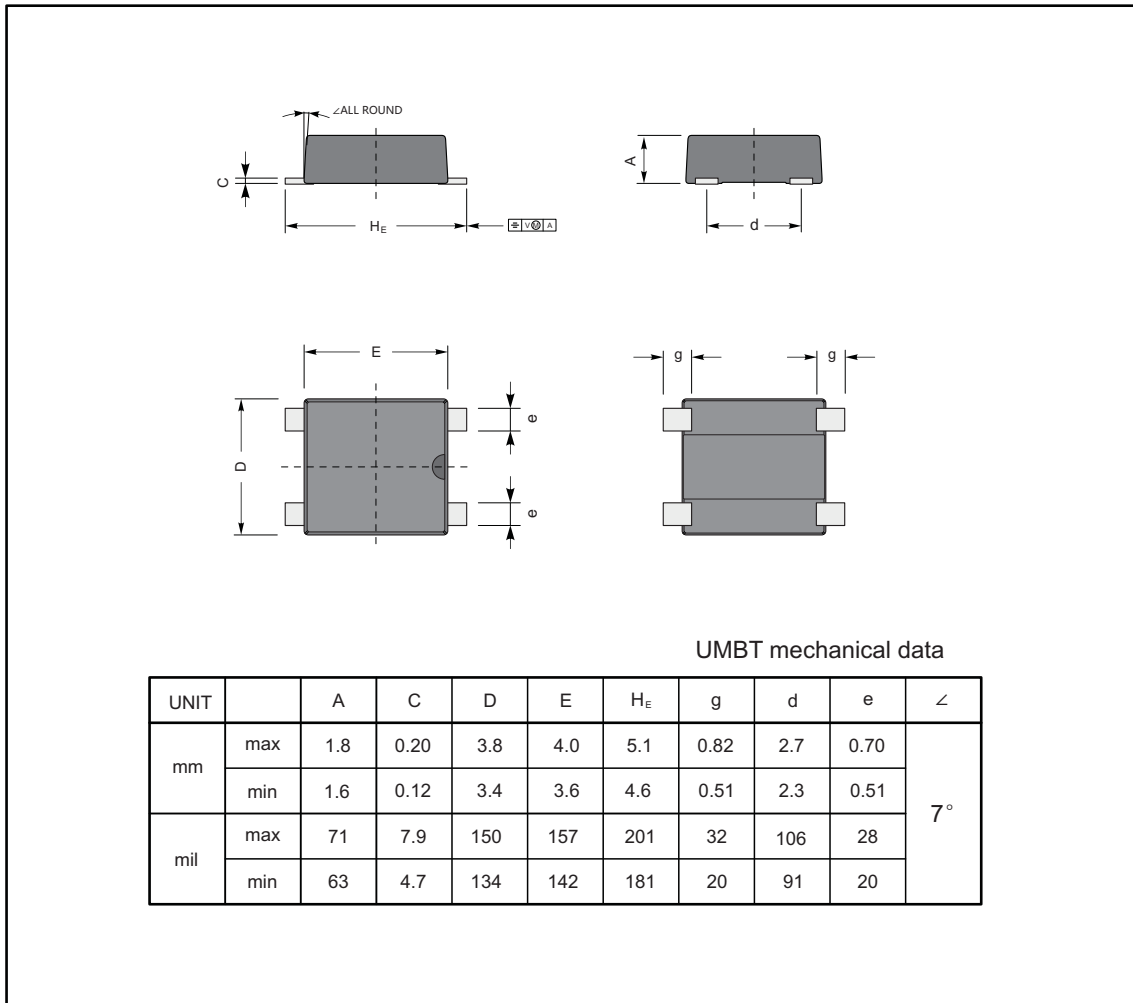




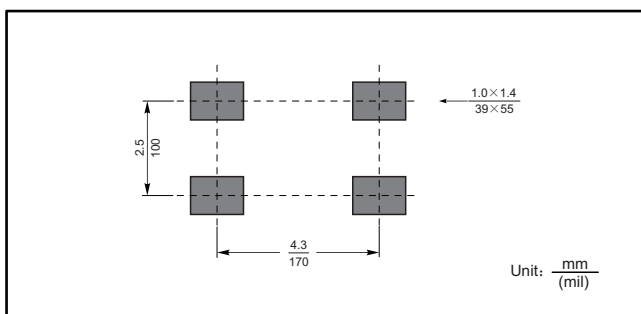
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

UMBT



The recommended mounting pad size



Marking

Type number	Marking code
BP47CUM10B-10	BP47C10



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