

Transient Voltage Suppressors (TVS) Data Sheet

Features

- High current transient suppressor
- Excellent clamping capability
- Glass passivated junction
- Bi-directional.
- Low slope resistance.
- Hazardous Substances Free.
- RoHS compliant



Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Rating	Symbol	Value		Units
Current Rating	I _{PP}	HFA-C	3	KA
		HFB-C	6	
		HFC-C	10	
Operating junction and Storage Temperature Range.	T _J , T _{STG}	-40 to +125		°C

Dimensions

	Symbol	Dimension	
		Inches	Millimeters
	A	0.370±0.016	9.4±0.4
	B	0.370±0.016	9.4±0.4
	C	0.787max	20max

Note: Drawing here are for illustration only, actual assembly depends on specific part number.

Electrical Characteristics (T_A=25°C)

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	V _{AC} (V)	V _{DC} (V)	V _{BR} (V) MIN. @I _T	I _T (mA)	Rated I _{PP} measured with 8/20μs	V _C (V) @I _{PP}	I _R (μA) @V _{DC}
HFA-012C	8.5	12.8	14	1	3KA	80	20
HFA-015C	11	15	17	1	3KA	85	20
HFA-020C	14	20	22	1	3KA	90	20
HFA-025C	17	25	28	1	3KA	95	20
HFA-030C	21	30	33	1	3KA	100	20
HFA-042C	30	42	47	1	3KA	105	20
HFA-058C	40	58	64	1	3KA	110	20
HFA-066C	45	66	70	1	3KA	120	20
HFA-076C	54	76	85	1	3KA	140	20
HFA-100C	72	100	110	1	3KA	165	20
HFA-133C	100	133	147	1	3KA	220	20
HFA-170C	130	170	180	1	3KA	260	20
HFA-190C	145	190	200	1	3KA	290	20
HFA-200C	150	200	222	1	3KA	330	20
HFA-240C	180	240	250	1	3KA	340	20
HFA-275C	210	275	300	1	3KA	435	20
HFA-300C	230	300	330	1	3KA	470	20
HFA-380C	275	380	401	1	3KA	520	20
HFA-430C	310	430	440	1	3KA	625	20
HFA-460C	330	460	500	1	3KA	770	20
HFA-500C	385	500	558	1	3KA	868	20
HFB-012C	8.5	12.8	14	1	6KA	80	20
HFB-015C	11	15	17	1	6KA	85	20
HFB-020C	14	20	22	1	6KA	90	20
HFB-025C	17	25	28	1	6KA	95	20
HFB-030C	21	30	33	1	6KA	100	20
HFB-042C	30	42	47	1	6KA	105	20
HFB-058C	40	58	64	1	6KA	110	20
HFB-066C	45	66	70	1	6KA	120	20
HFB-076C	54	76	85	1	6KA	140	20
HFB-100C	72	100	110	1	6KA	165	20

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	V _{AC} (V)	V _{DC} (V)	V _{BR} (V) MIN. @I _T	I _T (mA)	Rated I _{PP} measured with 8/20μs	V _C (V) @I _{PP}	I _R (μA) @V _{DC}
HFB-133C	100	133	147	1	6KA	220	20
HFB-170C	130	170	180	1	6KA	260	20
HFB-190C	145	190	200	1	6KA	290	20
HFB-200C	150	200	222	1	6KA	330	20
HFB-240C	180	240	250	1	6KA	340	20
HFB-275C	210	275	300	1	6KA	435	20
HFB-300C	230	300	330	1	6KA	470	20
HFB-380C	275	380	401	1	6KA	520	20
HFC-012C	8.5	12.8	14	1	10KA	80	20
HFC-015C	11	15	17	1	10KA	85	20
HFC-020C	14	20	22	1	10KA	90	20
HFC-025C	17	25	28	1	10KA	95	20
HFC-030C	21	30	33	1	10KA	100	20
HFC-042C	30	42	47	1	10KA	105	20
HFC-058C	40	58	64	1	10KA	110	20
HFC-066C	45	66	70	1	10KA	120	20
HFC-076C	54	76	85	1	10KA	140	20
HFC-100C	72	100	110	1	10KA	165	20
HFC-133C	100	133	147	1	10KA	220	20
HFC-170C	130	170	180	1	10KA	260	20
HFC-190C	145	190	200	1	10KA	290	20

Notes: 1. TA=25°C unless otherwise specified

2. Using 8/20μs wave shape pulses as defined in IEC61000-4-5

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Figure 1. Power Derating Curve

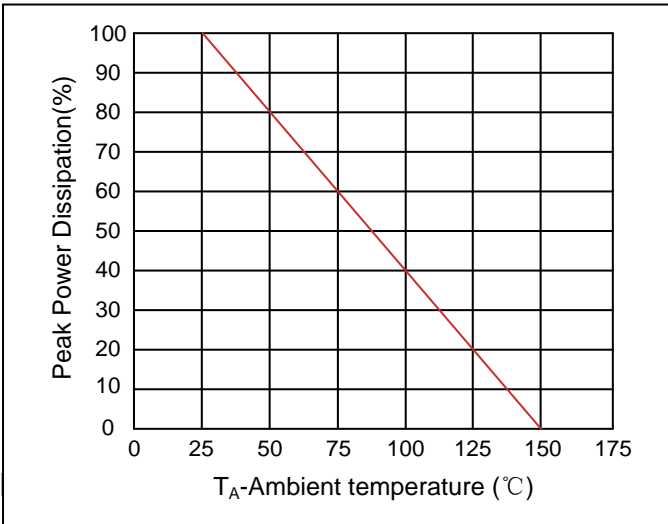
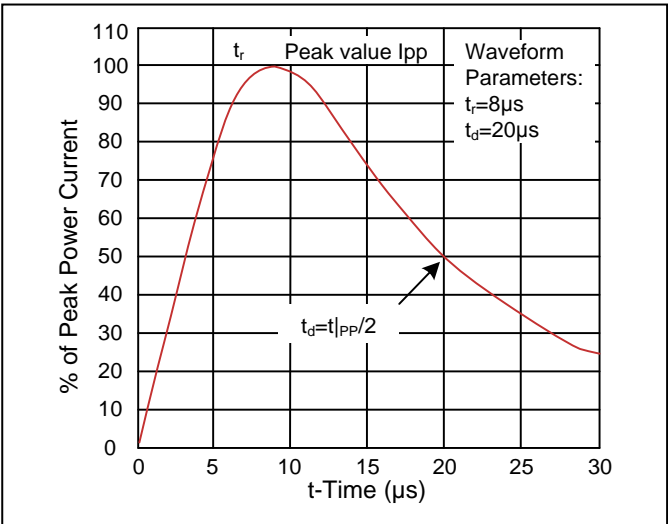
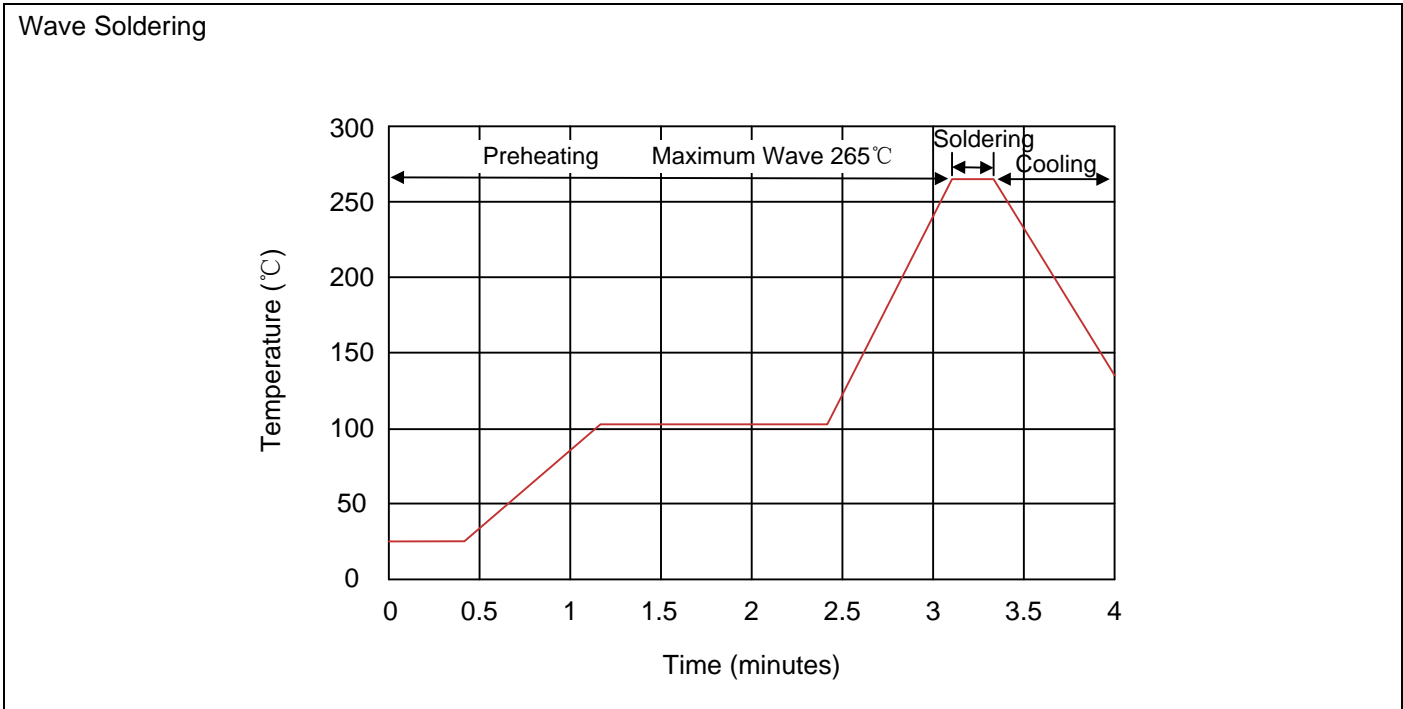


Figure 2. Pulse Waveform



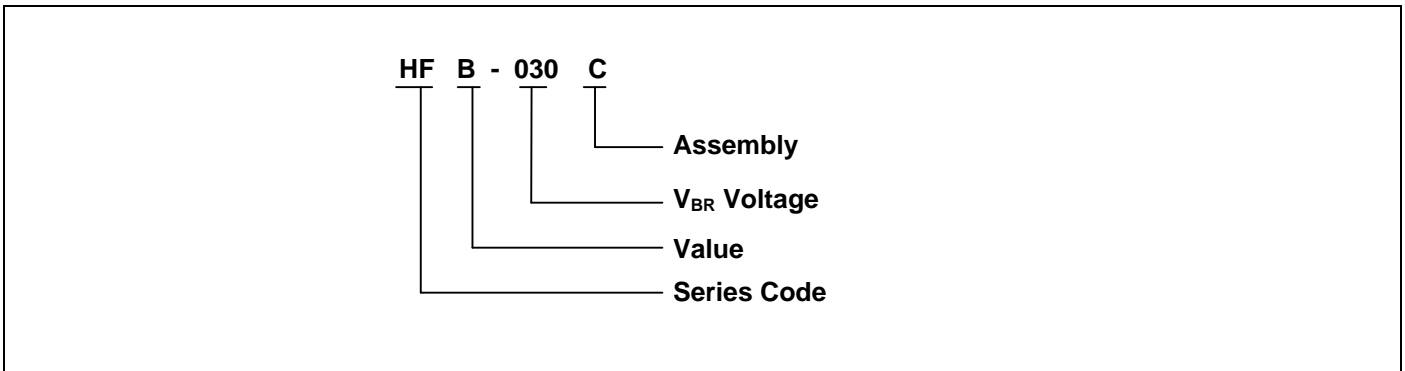
Recommended Soldering Conditions



Recommended Conditions

Item	Conditions
Peak Temperature	265°C
Dipping Time	10 seconds
Soldering	1 time

Part Number Code



Packaging

Hole foam packing		Symbol	Dimension (mm)
<p>The diagram shows a rectangular hole foam packing with a grid of 5x5 holes. Dimension A is the width, B is the height, and C is the thickness of the foam.</p>		A	235.0±1.0
		B	147.0±1.0
		C	10.0±1.0
		Quantity: 25PCS	
Inner Box		L	250.0
<p>The diagram shows a 3D perspective of a rectangular inner box with dimensions L (length), W (width), and H (height).</p>		W	65.0
		H	165.0
		Quantity: 75PCS	