



TVS Diodes Axial Ledged - 6kA > KB Series

Description

The KB Series of high power TVS diode is specially designed for meeting severe surge test environment of both AC and DC line protection applications.

The KB features a very fast response and ultra low clamping characteristics as compared to MOVs (Metal Oxide Varistors). These KB components can be connected in series and / or parallel to create a very high surge current protection solution.



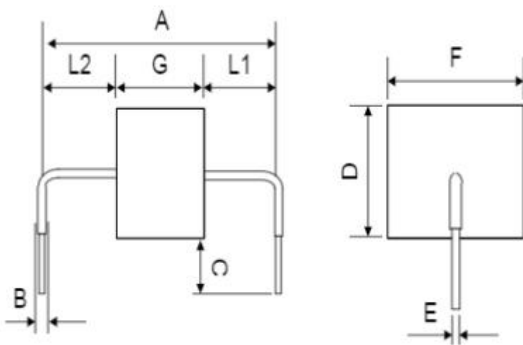
Maximum Ratings and Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating Storage Temperature Range	T_{STG}	-55 to 125	$^\circ\text{C}$
Operating Junction Temperature Range	T_J	-55 to 125	$^\circ\text{C}$
Surge Current Rating ($t_p=8/20\mu\text{s}$)	I_{PP}	6	kA

Feature

- Axial terminals
- High current & Excellent clamping capability
- Glass passivated junction chip
- Bi-directional
- Low slope resistance
- Hazardous Substances Free Compliant.
- RoHS compliant
- High Temperature wave soldering: $265^\circ\text{C}/10$ seconds at terminals
- Epoxy Coating

Product Dimension



Dimensions	Inches	Millimeters
A	0.95 ± 0.04	24.15 ± 1.0
B	0.095 ± 0.024	2.4 ± 0.60
C	0.236Min	6.00Min
D	0.630 Max	13.0 Max
E	0.050 ± 0.002	1.28 ± 0.05
F	0.630 Max	13.0 Max
G-030C	0.236Max	6.0Max
G-058C/C66C/076C	0.315Max	8.0Max
G-170C/190C/240C	0.551Max	14Max
G-380C/430C	0.708Max	18Max
L1=L2 tolerance $\pm 1.2\text{mm}$		

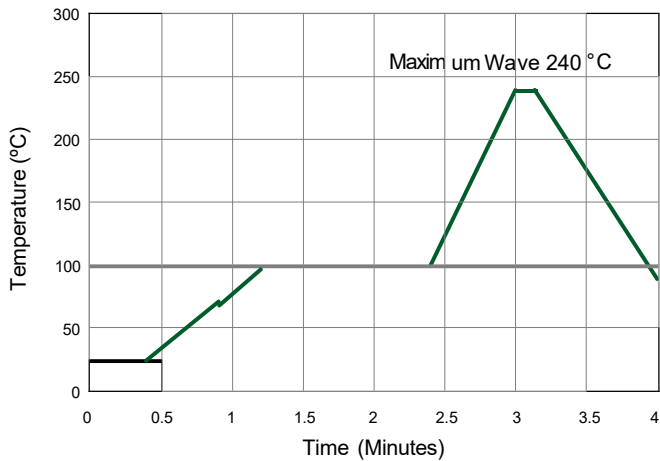


Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

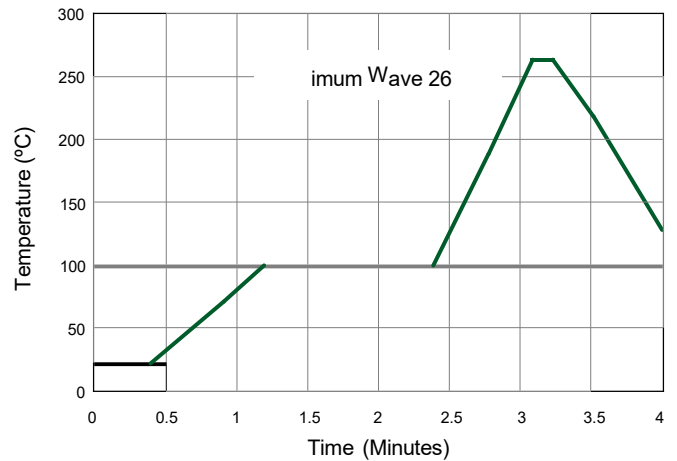
Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	V_{AC} (V)	V_{DC} (V)	Min. V_{BR} @ I_T (V)	I_T (mA)	I_{PP} @ 8/20 μs (kA)	V_C @ I_{PP} (V)	I_R @ V_{DC} (μA)
KB-030C	21	30	33	10	6	100	2
KB-042C	30	42	47	10	6	105	2
KB-058C	40	58	64	10	6	110	2
KB-066C	45	66	70	10	6	120	2
KB-076C	54	76	85	10	6	140	2
KB-170C	130	170	180	10	6	260	2
KB-190C	145	190	200	10	6	290	2
KB-240C	180	240	250	10	6	340	2
KB-380C	275	380	401	10	6	520	2
KB-430C	341	430	440	10	6	625	2

Wave Solder Profile

Non Lead-free Profile

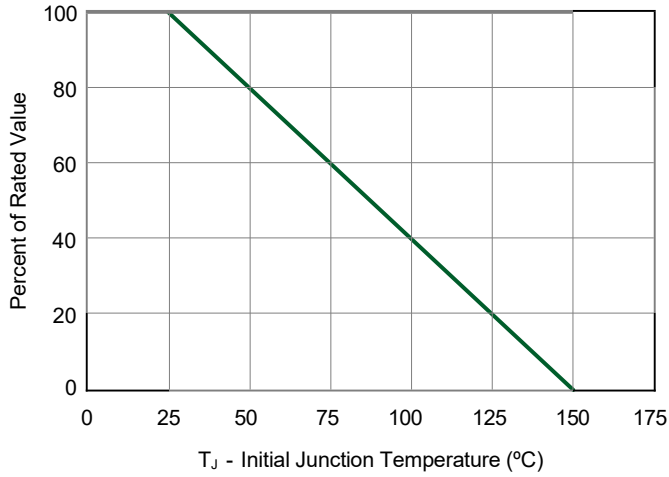


Lead-free Profile

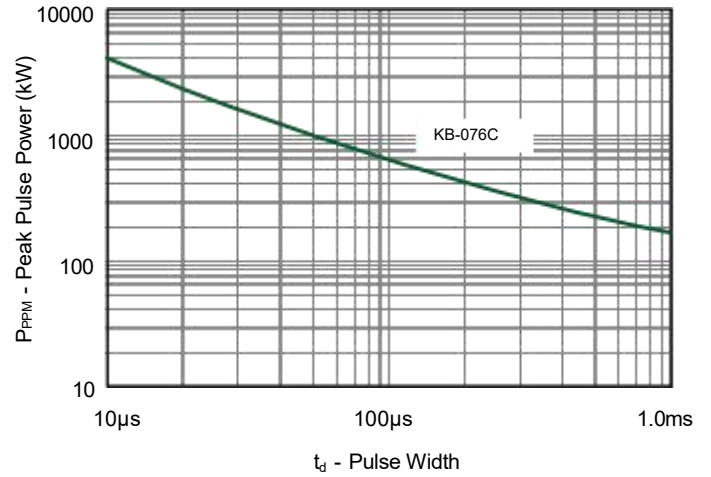




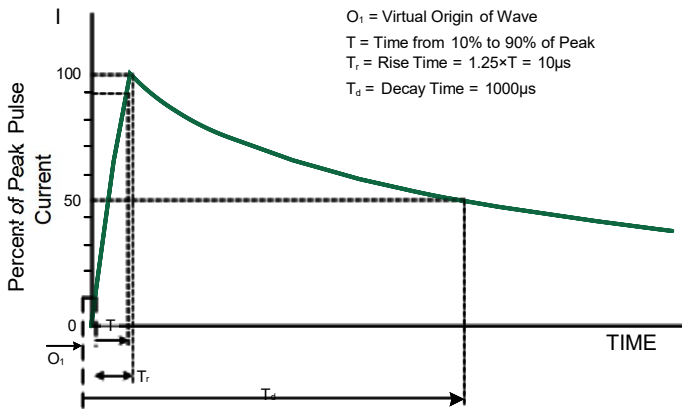
Peak Power Derating



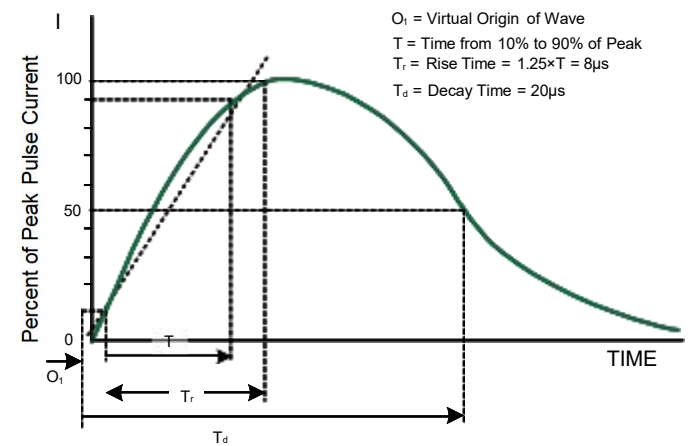
Typical Peak Pulse Power Rating Curve



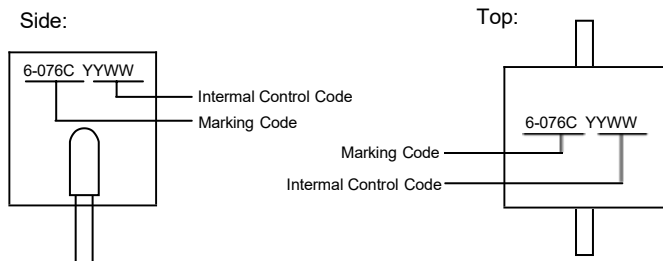
Pulse Waveform - 10/1000µs waveform



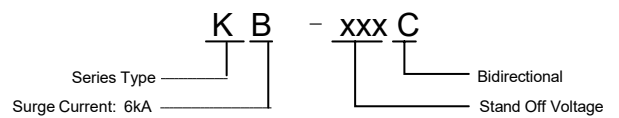
Pulse Waveform - 8/20µs waveform



Part Marking System



Part Number System



Order Information

Device	Qualities
KB Series	56pcs/Box