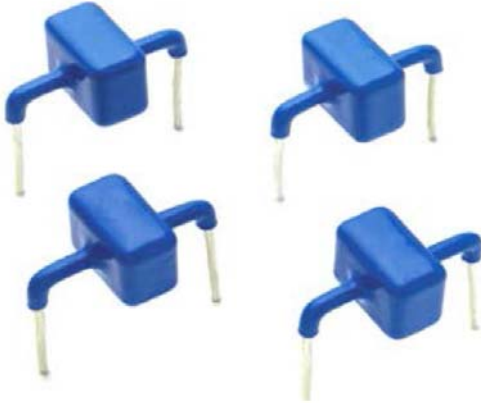


## Axial Lead TVS Diodes

### FEATURES

TKx



- Axial lead terminals.
- High current transient suppressor.
- Excellent clamping capability.
- Glass passivated junction.
- Bi-directional.
- Low slope resistance.
- Repetition Rate (duty cycle):0.01%.
- Hazardous substances free.
- High Temperature soldering: 260°C/10 seconds at terminals.
- Epoxy encapsulated.
- Meets MSL level 1, per J-STD-020.

### MAXIMUM RATINGS AND CHARACTERISTICS

Rating	Symbols	Value		Units
Current Rating	I <sub>PP</sub>	TKA	3	K Amps
		TKB	6	
		TKC	10	
		TKD	16	
Operating Junction Temperature Range	T <sub>J</sub>	-55 ~ +150		°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ +150		°C

RATINGS AND CHARACTERISTIC CURVES

Wave Solder Profile

Figure 1 - Non Lead-free Profile

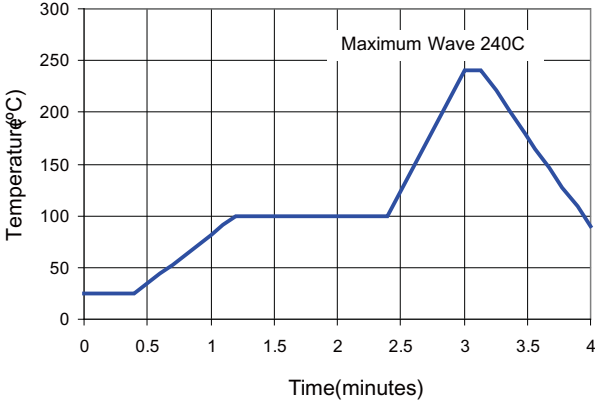


Figure 2 - Lead-free Profile

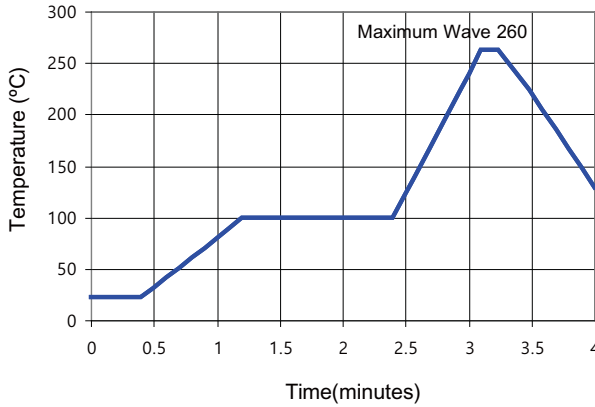


Figure 3. Power Derating Curve

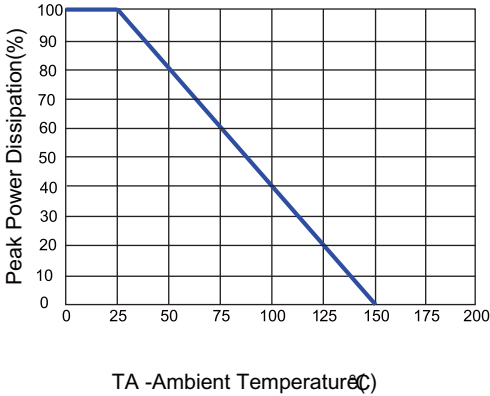
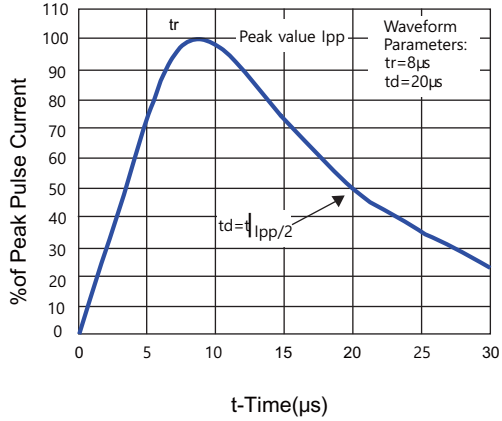


Figure 4. Pulse Waveforms



## Electrical Characteristics (T<sub>A</sub>=25°C)

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	V <sub>AC</sub> (V)	V <sub>DC</sub> (V)	V <sub>BR</sub> (V) MIN.@I <sub>T</sub>	I <sub>T</sub> (mA)	Rated I <sub>PP</sub> measured with 8/20μs pulse	V <sub>C</sub> (V) @I <sub>PP</sub>	I <sub>R</sub> (μA) @V <sub>DC</sub>
TKA-015C	11	15	17	1	3KA	85	20
TKA-030C	21	30	33	1	3KA	90	20
TKA-036C	28	36	40	1	3KA	100	20
TKA-042C	30	42	47	1	3KA	105	20
TKA-058C	40	58	64	1	3KA	110	20
TKA-066C	45	66	70	1	3KA	120	20
TKA-076C	54	76	85	1	3KA	140	20
TKA-170C	130	170	180	1	3KA	260	20
TKA-190C	145	190	200	1	3KA	290	20
TKA-200C	150	200	222	1	3KA	330	20
TKA-240C	180	240	250	1	3KA	340	20
TKA-380C	275	380	401	1	3KA	520	20
TKA-430C	310	430	440	1	3KA	625	20
TKB-015C	11	15	17	1	6KA	85	20
TKB-030C	21	30	33	1	6KA	90	20
TKB-036C	28	36	40	1	6KA	100	20
TKB-042C	30	42	47	1	6KA	105	20
TKB-058C	40	58	64	1	6KA	110	20
TKB-066C	45	66	70	1	6KA	120	20
TKB-076C	54	76	85	1	6KA	140	20
TKB-170C	130	170	180	1	6KA	260	20
TKB-190C	145	190	200	1	6KA	290	20
TKB-200C	150	200	222	1	6KA	330	20
TKB-240C	180	240	250	1	6KA	340	20
TKB-380C	275	380	401	1	6KA	520	20
TKB-430C	310	430	440	1	6KA	625	20

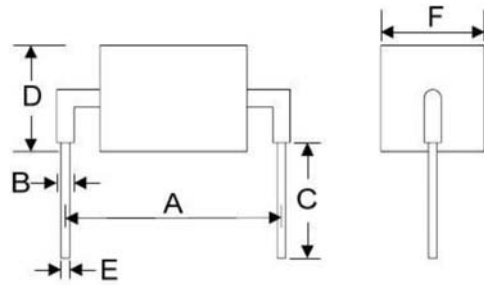
Notes : Using 8/20 μs wave shape pulses as defined in IEC61000-4-5

## Electrical Characteristics (T<sub>A</sub>=25°C)

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	V <sub>AC</sub> (V)	V <sub>DC</sub> (V)	V <sub>BR</sub> (V) MIN.@I <sub>T</sub>	I <sub>T</sub> (mA)	Rated I <sub>PP</sub> measured with 8/20μs pulse	V <sub>C</sub> (V) @I <sub>PP</sub>	I <sub>R</sub> (μA) @V <sub>DC</sub>
TKC-015C	11	15	17	1	10KA	85	20
TKC-030C	21	30	33	1	10KA	90	20
TKC-036C	28	36	40	1	10KA	100	20
TKC-042C	30	42	47	1	10KA	105	20
TKC-058C	40	58	64	1	10KA	110	20
TKC-066C	45	66	70	1	10KA	120	20
TKC-076C	54	76	85	1	10KA	140	20
TKC-170C	130	170	180	1	10KA	260	20
TKC-190C	145	190	200	1	10KA	290	20
TKC-200C	150	200	222	1	10KA	330	20
TKC-240C	180	240	250	1	10KA	340	20
TKC-380C	275	380	401	1	10KA	520	20
TKC-430C	310	430	440	1	10KA	625	20
TKD-015C	11	15	17	1	16KA	85	20
TKD-030C	21	30	33	1	16KA	90	20
TKD-036C	28	36	40	1	16KA	100	20
TKD-042C	30	42	47	1	16KA	105	20
TKD-058C	40	58	64	1	16KA	110	20
TKD-066C	45	66	70	1	16KA	120	20
TKD-076C	54	76	85	1	16KA	140	20
TKD-170C	130	170	180	1	16KA	260	20
TKD-190C	145	190	200	1	16KA	290	20
TKD-200C	150	200	222	1	16KA	330	20
TKD-240C	180	240	250	1	16KA	340	20
TKD-380C	275	380	401	1	16KA	520	20
TKD-430C	310	430	440	1	16KA	625	20

Notes : Using 8/20 μs wave shape pulses as defined in IEC61000-4-5

## OUTLINE



Unit(mm)

### Dimensions

Unit(mm)

TKA / TKB / TKC-(020-190)C Series			TKC-(012/015/200/240)C/ TKD Series		
Symbol	Inches	Millimeters	Symbol	Inches	Millimeters
A	0.951±0.047	24.15±1.20	A	0.951±0.047	24.15±1.20
B	0.055min	1.40min	B	0.055min	1.40min
C	0.236±0.047	6.0±1.20	C	0.236±0.047	6.0±1.20
D	0.512max	13.0max	D	0.630max	16.0max
E	0.050±0.004	1.28±0.10	E	0.050±0.004	1.28±0.10
F	0.512max	13.0max	F	0.630max	16.0max

TKB-430C			TKC-430C		
Symbol	Inches	Millimeters	Symbol	Inches	Millimeters
A	1.063±0.047	27.00±1.20	A	1.024±0.047	26.00±1.20
B	0.055min	1.40min	B	0.055min	1.40min
C	0.079min	2.00min	C	0.079min	2.00min
D	0.512max	13.0max	D	0.630max	16.0max
E	0.050±0.004	1.28±0.10	E	0.050±0.004	1.28±0.10
F	0.512max	13.0max	F	0.630max	16.0max