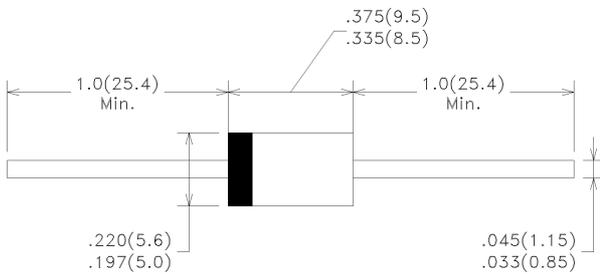


Package Outline Dimensions in mm (inches)

DO-27

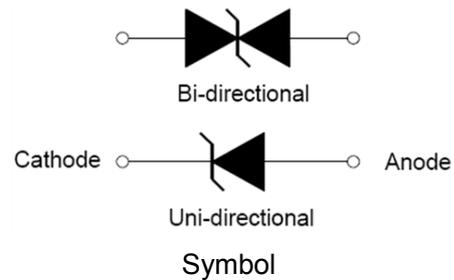


Features

- Excellent clamping capability
- Low dynamic impedance
- Low leakage current
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Mechanical Data

- Case: DO-27 Plastic Package
- Polarity: Color band denotes cathode end



ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +175	$^{\circ}\text{C}$
Steady state power dissipation at $T_L=75^{\circ}\text{C}$	$P_{M(AV)}$	6.5	W
Peak pulse power dissipation on 10/1000 μs waveform	P_{PP}	1500	W
Maximum instantaneous forward voltage at 100A for unidirectional	V_F	5.0	V
Peak forward surge current, 8.3ms single half sine-wave(NOTE 1)	I_{FSM}	200	A
Typical thermal resistance junction to lead	$R_{\theta JL}$	15	$^{\circ}\text{C/W}$

ABSOLUTE MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted, continued)

Typical thermal resistance junction to ambient	$R_{\theta JA}$	75	$^{\circ}\text{C/W}$
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Notes:

1. Measured on 8.3ms single half sine wave or equivalent square wave for unidirectional device only, duty cycle=4 per minute maximum

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

Part Number		V_R	$I_R@V_R$	$V_{BR}@I_T$		I_T	$V_C@I_{PP}$	$I_{PP}^{\text{①}}$
Uni-Polar	Bi-Polar	V	μA	min(V)	max(V)	mA	max(V)	A
1.5KE6.8A	1.5KE6.8CA	5.8	300	6.45	7.14	10	10.5	144.8
1.5KE7.5A	1.5KE7.5CA	6.4	150	7.13	7.88	10	11.3	134.5
1.5KE8.2A	1.5KE8.2CA	7.02	100	7.79	8.61	10	12.1	125.6
1.5KE9.1A	1.5KE9.1CA	7.78	50	8.65	9.55	1	13.4	113.4
1.5KE10A	1.5KE10CA	8.55	20	9.50	10.50	1	14.5	104.8
1.5KE11A	1.5KE11CA	9.4	5	10.50	11.60	1	15.6	97.4
1.5KE12A	1.5KE12CA	10.2	2	11.40	12.60	1	16.7	91.0
1.5KE13A	1.5KE13CA	11.1	1	12.40	13.70	1	18.2	83.5
1.5KE15A	1.5KE15CA	12.8	1	14.30	15.80	1	21.2	71.7
1.5KE16A	1.5KE16CA	13.6	1	15.20	16.80	1	22.5	67.6
1.5KE18A	1.5KE18CA	15.3	1	17.10	18.90	1	25.2	60.3
1.5KE20A	1.5KE20CA	17.1	1	19.00	21.00	1	27.7	54.9
1.5KE22A	1.5KE22CA	18.8	1	20.90	23.10	1	30.6	49.7
1.5KE24A	1.5KE24CA	20.5	1	22.80	25.20	1	33.2	45.8
1.5KE27A	1.5KE27CA	23.1	1	25.70	28.40	1	37.5	40.5
1.5KE30A	1.5KE30CA	25.6	1	28.50	31.50	1	41.4	36.7
1.5KE33A	1.5KE33CA	28.2	1	31.40	34.70	1	45.7	33.3
1.5KE36A	1.5KE36CA	30.8	1	34.20	37.80	1	49.9	30.5
1.5KE39A	1.5KE39CA	33.3	1	37.10	41.00	1	53.9	28.2
1.5KE43A	1.5KE43CA	36.8	1	40.90	45.20	1	59.3	25.6
1.5KE47A	1.5KE47CA	40.2	1	44.70	49.40	1	64.8	23.5
1.5KE51A	1.5KE51CA	43.6	1	48.50	53.60	1	70.1	21.7
1.5KE56A	1.5KE56CA	47.8	1	53.20	58.80	1	77.0	19.7
1.5KE62A	1.5KE62CA	53.0	1	58.90	65.10	1	85.0	17.9

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$, continued)

Part Number		V_R	$I_R@V_R$	$V_{BR}@I_T$		I_T	$V_C@I_{PP}$	$I_{PP}^{\text{①}}$
Uni-Polar	Bi-Polar	V	μA	min(V)	max(V)	mA	max(V)	A
1.5KE68A	1.5KE68CA	58.1	1	64.60	71.40	1	92.0	16.5
1.5KE75A	1.5KE75CA	64.1	1	71.30	78.80	1	103.0	14.8
1.5KE82A	1.5KE82CA	70.1	1	77.90	86.10	1	113.0	13.5
1.5KE91A	1.5KE91CA	77.8	1	86.50	95.50	1	125.0	12.2
1.5KE100A	1.5KE100CA	85.5	1	95.00	105.0	1	137.0	11.1
1.5KE110A	1.5KE110CA	94.0	1	105.0	116.0	1	152.0	10.0
1.5KE120A	1.5KE120CA	102.0	1	114.0	126.0	1	165.0	9.2
1.5KE130A	1.5KE130CA	111.0	1	124.0	137.0	1	179.0	8.5
1.5KE150A	1.5KE150CA	128.0	1	143.0	158.0	1	207.0	7.3
1.5KE160A	1.5KE160CA	136.0	1	152.0	168.0	1	219.0	6.9
1.5KE170A	1.5KE170CA	145.0	1	162.0	179.0	1	234.0	6.5
1.5KE180A	1.5KE180CA	154.0	1	171.0	189.0	1	246.0	6.2
1.5KE200A	1.5KE200CA	171.0	1	190.0	210.0	1	274.0	5.5
1.5KE220A	1.5KE220CA	185.0	1	209.0	231.0	1	328.0	4.6
1.5KE250A	1.5KE250CA	214.0	1	237.0	263.0	1	344.0	4.4
1.5KE300A	1.5KE300CA	256.0	1	285.0	315.0	1	414.0	3.7
1.5KE350A	1.5KE350CA	300.0	1	332.0	368.0	1	482.0	3.2
1.5KE400A	1.5KE400CA	342.0	1	380.0	420.0	1	548.0	2.8
1.5KE440A	1.5KE440CA	376.0	1	418.0	462.0	1	602.0	2.5
1.5KE480A	1.5KE480CA	408.0	1	456.0	504.0	1	658.0	2.3
1.5KE510A	1.5KE510CA	434.0	1	485.0	535.0	1	698.0	2.1
1.5KE540A	1.5KE540CA	460.0	1	513.0	567.0	1	740.0	2.0
1.5KE600A	1.5KE600CA	512.0	1	570.0	630.0	1	828.0	1.8

① Surge waveform:10/1000 μs

V_R : Stand-off voltage -- Maximum voltage that can be applied

V_{BR} : Breakdown voltage

V_C : Clamping voltage -- Peak voltage measured across the suppressor at a specified I_{PP}

I_R : Reverse leakage current

RATINGS AND V-I CHARACTERISTICS CURVES ($T_A=25^\circ\text{C}$, unless otherwise noted)

FIG.1: V- I curve characteristics (Uni-directional)

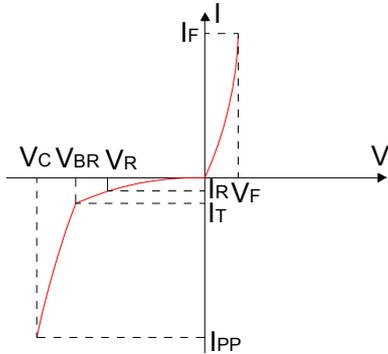


FIG.2: V- I curve characteristics (Bi-directional)

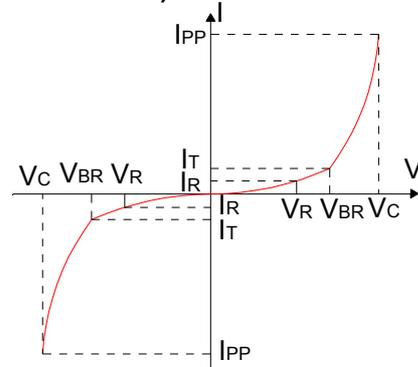


FIG.3: Pulse waveform

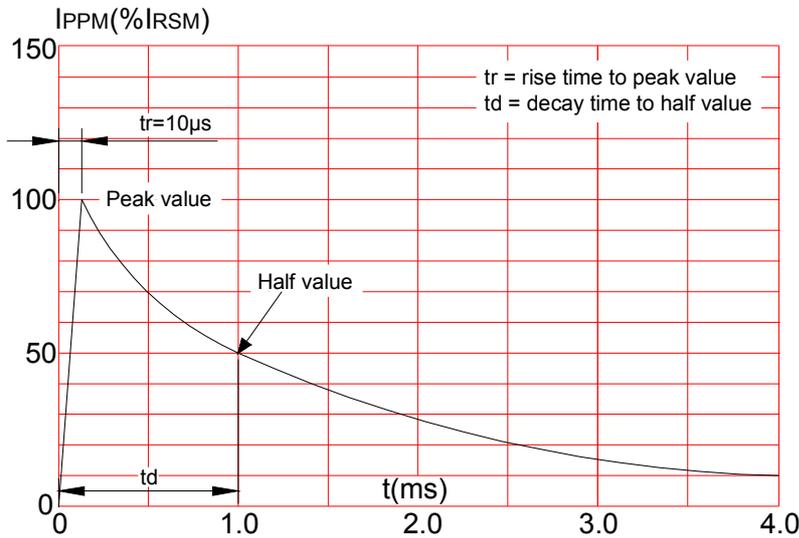


FIG.4: Pulse derating curve

