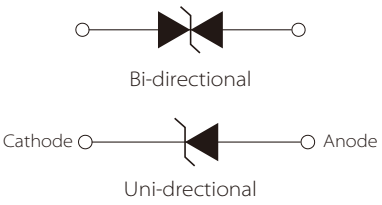
FEATURES

- Plastic package
- Glass passivated chip junction in DO-201 Package
- 1500W peak pulse power capability on 10/1000us waveform
- Excellent clamping capability
- Low zener impedance
- Fast response time:typically less than 1.0ps from 0 Volts to BV min
- Typical IR less than 1uA above 12V
- Case:JEDEC DO-201 Molded Plastic
- Terminals:Axial leads,solderable per MIL-STD-750,Method 2026
- Polarity:Color band denoted cathode except bidirectional
- Mounting Position:Any

DO-201



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS AND CHARACTERISTICS(T_A=25°C)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 10/1000μs waveform	P_{PP}	1500	W
Steady state power dissipation at T_L=75℃	P_D	6.5	
Peak Pulse Current of on 10/1000us waveform(Note1)	I_{PPM}	See Table	A
Peak forward surge current, 8.3ms single half sine-wave for unidirectional only	I_{FSM}	200	
Typical thermal resistance, junction to ambient	$R_{\theta JA}$	75	℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (T_A=25°C)

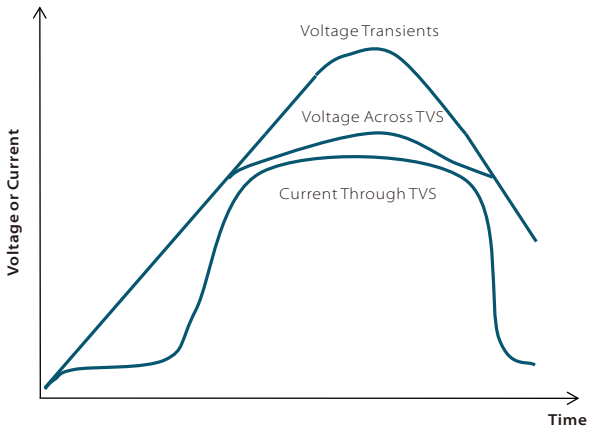
Part Number		Marking Code		V_R	V_{BR}@I_T		I_T	V_C@I_{PP}	I_{PP}①	I_R@V_R
Uni-Polar	Bi-Polar	Uni-Polar	Bi-Polar	V	Min(V)	Max (V)	mA	V	A	Max(μA)
1.5KE6.8A	1.5KE6.8CA	1.5KE6.8A	1.5KE6.8CA	5.8	6.45	7.14	10	10.5	145	1000
1.5KE7.5A	1.5KE7.5CA	1.5KE7.5A	1.5KE7.5CA	6.4	7.13	7.88	10	11.3	135	500
1.5KE8.2A	1.5KE8.2CA	1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10	12.1	126	200
1.5KE9.1A	1.5KE9.1CA	1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.5	1	13.4	113	50
1.5KE10A	1.5KE10CA	1.5KE10A	1.5KE10CA	8.55	9.5	10.3	1	14.5	105	10
1.5KE11A	1.5KE11CA	1.5KE11A	1.5KE11CA	9.4	10.5	11.6	1	15.6	97.4	5
1.5KE12A	1.5KE12CA	1.5KE12A	1.5KE12CA	10.2	11.4	12.6	1	16.7	91.0	5
1.5KE13A	1.5KE13CA	1.5KE13A	1.5KE13CA	11.1	12.4	13.7	1	18.2	83.5	1
1.5KE15A	1.5KE15CA	1.5KE15A	1.5KE15CA	12.8	14.3	15.8	1	21.2	71.7	1
1.5KE16A	1.5KE16CA	1.5KE16A	1.5KE16CA	13.6	15.2	16.8	1	22.5	67.6	1
1.5KE18A	1.5KE18CA	1.5KE18A	1.5KE18CA	15.3	17.1	18.9	1	25.2	60.3	1
1.5KE20A	1.5KE20CA	1.5KE20A	1.5KE20CA	17.1	19.0	21.0	1	27.7	54.9	1
1.5KE22A	1.5KE22CA	1.5KE22A	1.5KE22CA	18.8	20.9	23.1	1	30.6	49.7	1
1.5KE24A	1.5KE24CA	1.5KE24A	1.5KE24CA	20.5	22.8	25.2	1	33.2	45.8	1
1.5KE27A	1.5KE27CA	1.5KE27A	1.5KE27CA	23.1	25.7	28.4	1	37.5	40.5	1
1.5KE30A	1.5KE30CA	1.5KE30A	1.5KE30CA	25.6	28.5	31.5	1	41.4	36.7	1
1.5KE33A	1.5KE33CA	1.5KE33A	1.5KE33CA	28.2	31.4	34.7	1	45.7	33.3	1
1.5KE36A	1.5KE36CA	1.5KE36A	1.5KE36CA	30.8	34.2	37.8	1	49.9	30.5	1
1.5KE39A	1.5KE39CA	1.5KE39A	1.5KE39CA	33.3	37.1	41.0	1	53.9	28.2	1
1.5KE43A	1.5KE43CA	1.5KE43A	1.5KE43CA	36.8	40.9	45.2	1	59.3	25.6	1
1.5KE47A	1.5KE47CA	1.5KE47A	1.5KE47CA	40.2	44.7	49.4	1	64.8	23.5	1
1.5KE51A	1.5KE51CA	1.5KE51A	1.5KE51CA	43.6	48.5	53.6	1	70.1	21.7	1
1.5KE56A	1.5KE56CA	1.5KE56A	1.5KE56CA	47.8	53.2	58.8	1	77.0	19.7	1
1.5KE62A	1.5KE62CA	1.5KE62A	1.5KE62CA	53.0	58.9	65.1	1	85.0	17.9	1

Part Number		Marking Code		V_R	$V_{BR}@I_T$		I_T	$V_C@I_{PP}$	I_{PP} ①	$I_R@V_R$
Uni-Polar	Bi-Polar	Uni-Polar	Bi-Polar	V	Min(V)	Max (V)	mA	V	A	Max(μA)
1.5KE68A	1.5KE68CA	1.5KE68A	1.5KE68CA	58.1	64.6	71.4	1	92.0	16.5	1
1.5KE75A	1.5KE75CA	1.5KE75A	1.5KE75CA	64.1	71.3	78.8	1	103	14.8	1
1.5KE82A	1.5KE82CA	1.5KE82A	1.5KE82CA	70.1	77.9	86.1	1	113	13.5	1
1.5KE91A	1.5KE91CA	1.5KE91A	1.5KE91CA	77.8	86.5	95.5	1	125	12.2	1
1.5KE100A	1.5KE100CA	1.5KE100A	1.5KE100CA	85.5	95.0	105	1	137	11.1	1
1.5KE110A	1.5KE110CA	1.5KE110A	1.5KE110CA	94.0	105	116	1	152	10.0	1
1.5KE120A	1.5KE120CA	1.5KE120A	1.5KE120CA	102	114	126	1	165	9.2	1
1.5KE130A	1.5KE130CA	1.5KE130A	1.5KE130CA	111	124	137	1	179	8.5	1
1.5KE150A	1.5KE150CA	1.5KE150A	1.5KE150CA	128	143	158	1	207	7.3	1
1.5KE160A	1.5KE160CA	1.5KE160A	1.5KE160CA	136	152	168	1	219	6.9	1
1.5KE170A	1.5KE170CA	1.5KE170A	1.5KE170CA	145	162	179	1	234	6.5	1
1.5KE180A	1.5KE180CA	1.5KE180A	1.5KE180CA	154	171	189	1	246	6.2	1
1.5KE200A	1.5KE200CA	1.5KE200A	1.5KE200CA	171	190	210	1	274	5.5	1
1.5KE220A	1.5KE220CA	1.5KE220A	1.5KE220CA	185	209	231	1	328	4.6	1
1.5KE250A	1.5KE250CA	1.5KE250A	1.5KE250CA	214	237	263	1	344	4.4	1
1.5KE300A	1.5KE300CA	1.5KE300A	1.5KE300CA	258	285	315	1	414	3.7	1
1.5KE350A	1.5KE350CA	1.5KE350A	1.5KE350CA	300	332	368	1	482	3.2	1
1.5KE400A	1.5KE400CA	1.5KE400A	1.5KE400CA	342	380	420	1	548	2.8	1
1.5KE440A	1.5KE440CA	1.5KE440A	1.5KE440CA	376	418	462	1	602	2.5	1
1.5KE480A	1.5KE480CA	1.5KE480A	1.5KE480CA	408	456	504	1	658	2.3	1
1.5KE510A	1.5KE510CA	1.5KE510A	1.5KE510CA	434	485	535	1	698	2.1	1
1.5KE530A	1.5KE530CA	1.5KE530A	1.5KE530CA	451	503	557	1	725	2.1	1
1.5KE540A	1.5KE540CA	1.5KE540A	1.5KE540CA	459	513	567	1	740	2.0	1
1.5KE550A	1.5KE550CA	1.5KE550A	1.5KE550CA	467	522	578	1	760	2.0	1
1.5KE600A	1.5KE600CA	1.5KE600A	1.5KE600CA	510	570	630	1	828	1.8	1

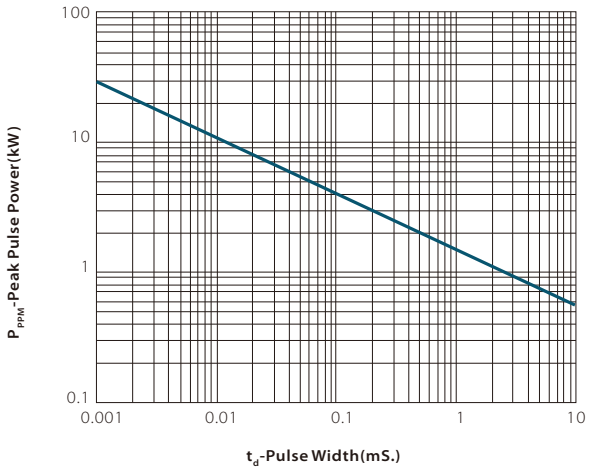
Note:
①.Surge waveform:10/1000μs
V_R: Stand-off voltage -- Maximum voltage that can be applied
V_{BR}: Breakdown voltage
V_C: Clamping voltage -- Peak voltage measured across the suppressor at a specified I_{PP}
I_R: Reverse leakage current

CHARACTERISTIC CURVES

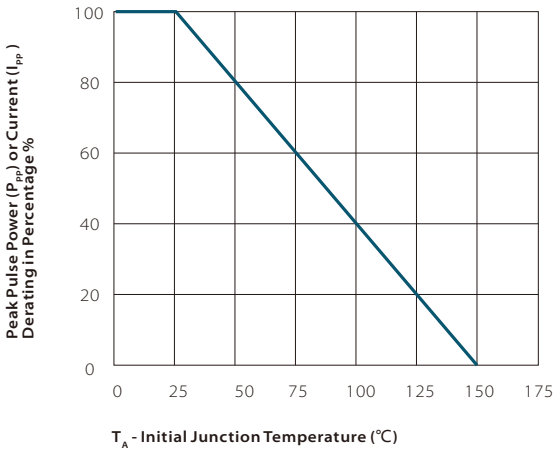
TVS Transients Clamping Waveform



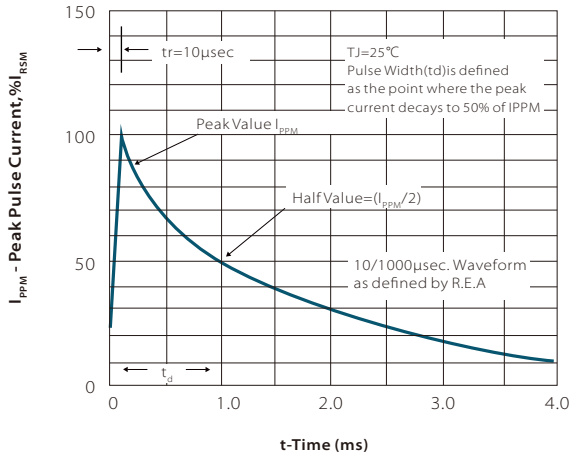
Peak Pulse Power Rating Curve



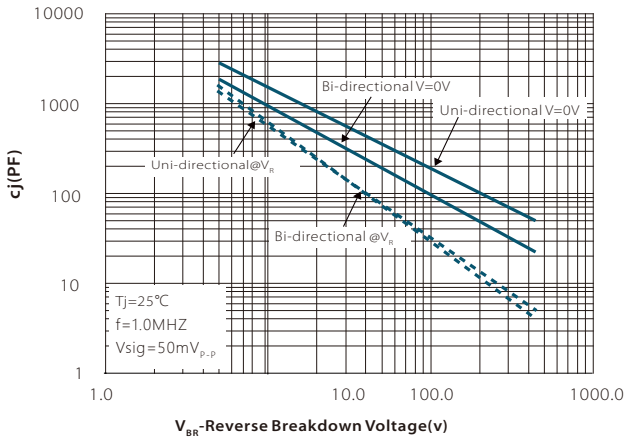
Pulse Derating Curve



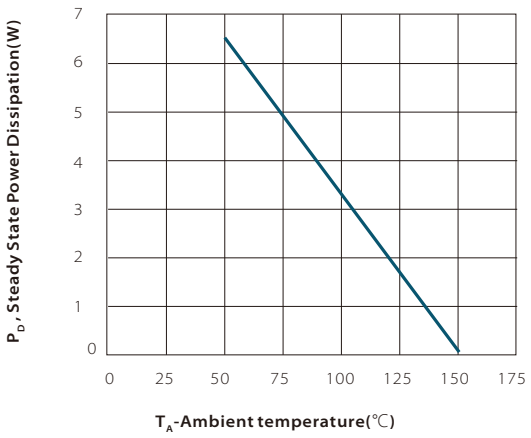
Pulse Waveform



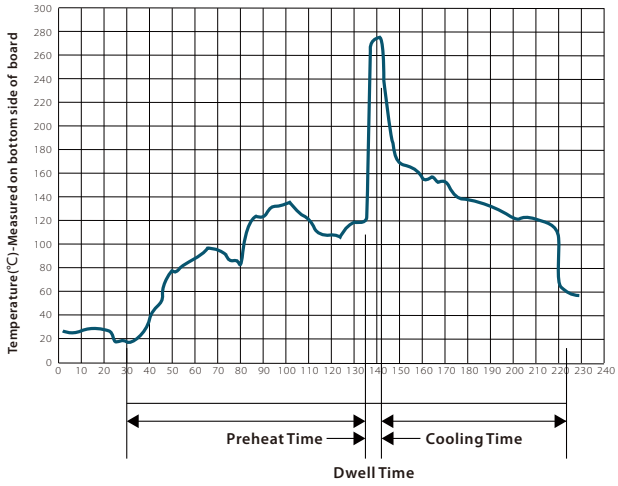
Typical Junction Capacittance



Steady State Power Dissipaton Deraiting Curve

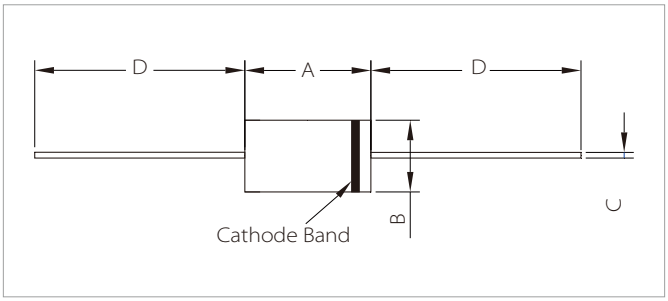


WAVE SOLDERING



Wave Parameter		Lead–free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

DO-201 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	7.20	9.50	0.285	0.375
B	4.80	5.30	0.190	0.210
C	0.96	10.7	0.038	0.042
D	25.40	-	1.000	-

ORDERING INFORMATION

Part Number	Component Package	Base Quantity	Packing Option
1.5KExxA/CA	DO-201	1000pcs	AMMO
		1200pcs	Tape&Reel

To find your local partner within Semiwell's website : www.semiwell.com