1.5KEG SERIES

Unidirectional and Bidirectional Transient Voltage Suppressors
单向和双向表面贴装瞬态抑制二极管

Reverse Voltage 6.8 - 400 Volts
反向电压 6.8-400V
Power Dissipation - 1500 Watts
功率损耗 1500W

Features 特征

- low leakage 漏电低
- Uni and bidirectional unit 单向和双向产品
- Excellent clamping capability 极好的钳位能力
- Fast response time 响应时间快

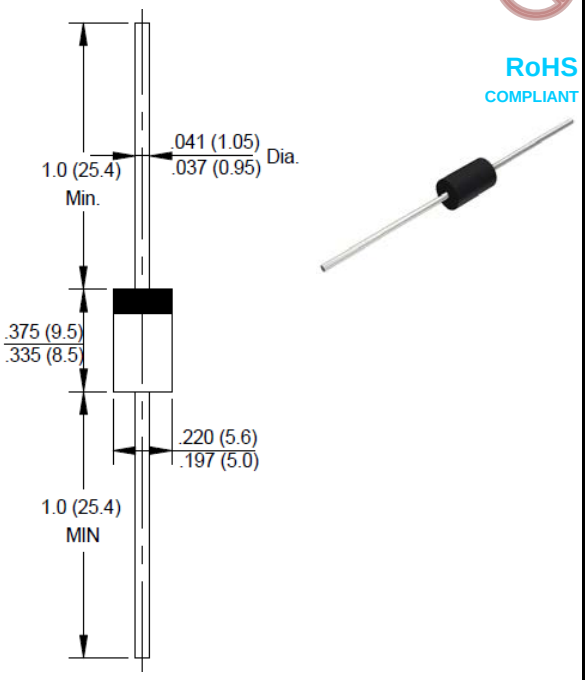
Mechanical Data 外观信息

- Case: DO-201AE molded plastic 封装：DO-201AE塑封
- Polarity: Color band denotes cathode 极性：带色环的为阴极

Applications 应用

- Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs,MOSFET。
  在开关、照明等电子行业用于保护ICs,MOSFET管，由于感性负载引起的电压瞬间变化。

DO-201AE



Package Outline Dimensions in Inches (Millimeters)
封装外观尺寸单位英寸（毫米）

Maximum Ratings and Electrical Characteristics 最大额定值及电气特性

Rating at 25℃ ambient temperature unless otherwise specified. 环境温度25℃，除非特别说明。
Single phase, half wave, 60Hz, resistive or inductive load. 单相半波， 60Hz， 阻性或感性负载。
For capacitive load, derate current by 20%. 对于电容性负载，降低20%的额定电流。

Characteristics 特性	Symbol 符号	Value 值	Unit 单位
Peak Power Dissipation at T_A=25℃ T_P=1ms (Note 1) 峰值功率损耗（备注1）	P_{PK}	1500（Min)	W
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) 8.3mS单一正弦半波叠加在额定负载上的浪涌能力（JEDEC方法）	I_{FSM}	200	A
Steady State Power Dissipation at T_L=75℃ Lead Lengths 0.375"(9.5mm),See Fig. 6 引线温度是75℃下的稳态功耗	$P_{M(AV)}$	5	W
Maximum Instantaneous Forward Voltage at 50A for Unidirectional Devices Only (Note 2) 仅对于单向在50A电流下的最大瞬态正向电压 (备注2）	V_F	See Note 3	℃/W
Operating Junction Temperature Range 结温工作范围	T_J	-55 to + 150	℃
Storage Temperature Range 储存温度范围	T_{STG}	-55 to + 175	℃

Notes: 1. Non-repetitive current pulse ,per Fig. 3 and derated above T_A=25℃ per Fig. 1. 不重复的浪涌电流，如 图3 降额曲线，如图1

2. 8.3ms single half-wave duty cycle=4 pulses per minutes maximum (uni-directional units only).
   8.3ms单一正弦半波的工作周期=每分钟最大4个脉冲（仅针对单向部分）

3. V_F=3.5V on 1.5KE6.8G thru 1.5KE200AG devices and V_F=5.0V on 1.5KE220G thru 1.5KE400AG devices.

Fig. 1 - Maximum Non-Repetitive Peak Forwaed Surge Current

图1. 脉冲降额曲线

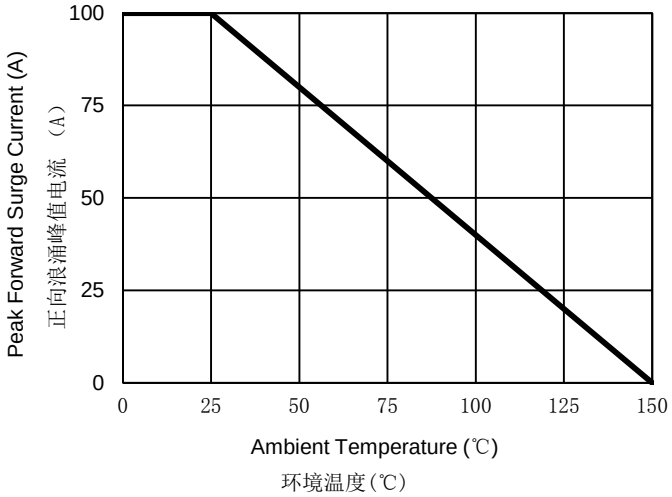


Fig. 2 - Maximum Non-Repetitive Surge Current

图2 最大不重复正向浪涌曲线

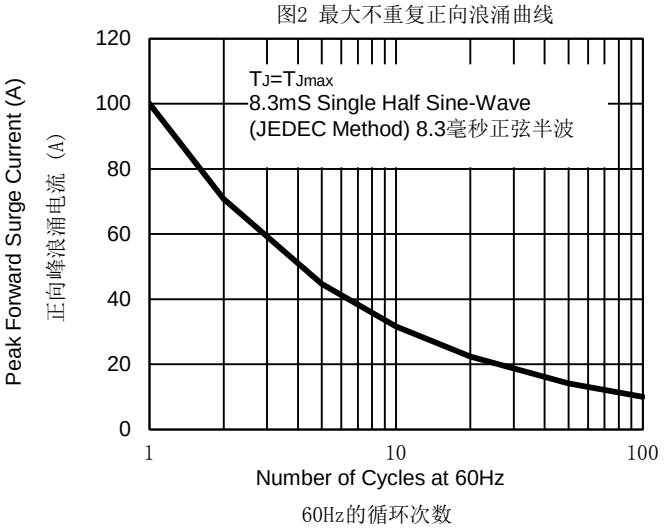


Fig. 3 - Pulse Waveform

图2 脉冲波形

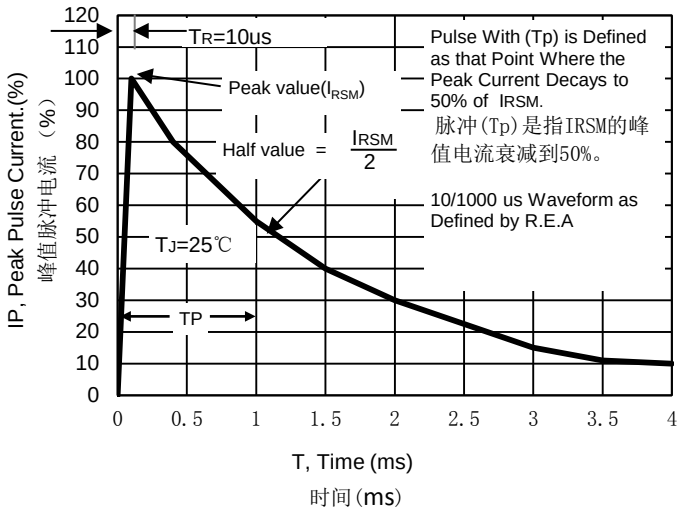


Fig.4- Typical Junction Capacitance

图4 典型的结电容

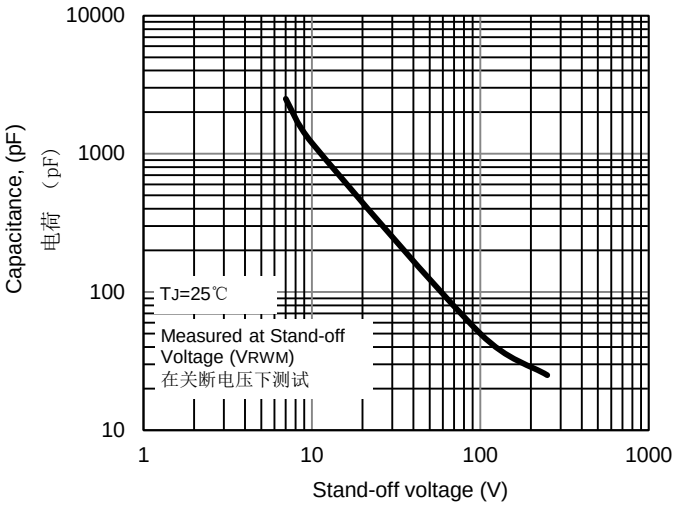


Fig. 5 - Pulse Rating Curve

图5 脉冲额定曲线

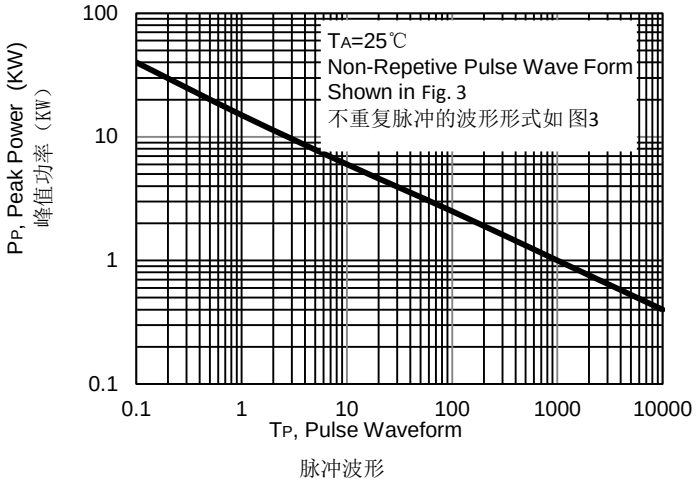
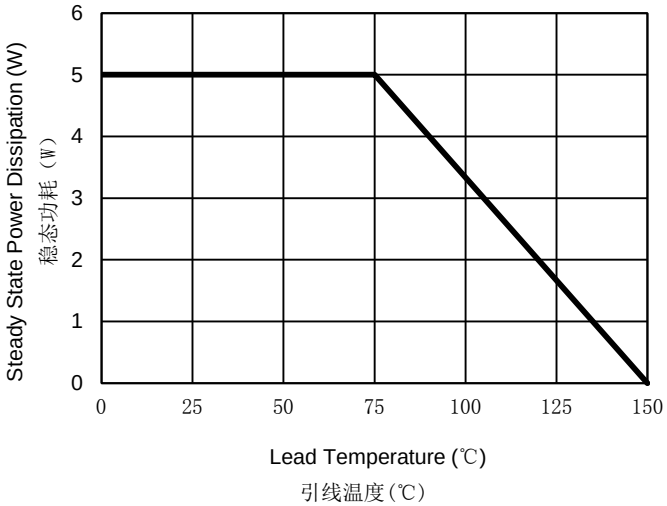


Fig. 6 - Steady State Power Derating Curve

图6. 稳态功率降额曲线



The curve above is for reference only. 曲线图仅供参考。

1.5KE SERIES

Device Uni-directional 单向	Device Bi-directional 双向	Reverse Stand off Voltage 反向关断电压	Breakdown Voltage at IT2 V(BR) (V) 在IT2条件下的击穿电压			Maximum Reverse Leakage at V_R 在VR下最大的反向漏电	Maximum Clamping Voltage at I_{PPM} 在I_{PPM}条件下最大的钳位电流	Maximum Peak Pulse Surge Current(3) 最大的峰值脉冲浪涌电流	Max. Voltage Temp. 电压温度变化的最大值
(UNI)	(BI)	VR(V)	Min(V)	Max(V)	It(mA)	IR(μA)	Vc(V)	Ipp(A)	mV/℃
1.5KEG6.8A	1.5KEG6.8CA	5.80	6.45	7.14	10	1000	10.5	143.0	0.057
1.5KEG7.5A	1.5KEG7.5CA	6.40	7.13	7.88	10	500	11.3	132.0	0.061
1.5KEG8.2A	1.5KEG8.2CA	7.02	7.79	8.61	10	200	12.1	124.0	0.065
1.5KEG9.1A	1.5KEG9.1CA	7.78	8.65	9.55	1	50	13.4	112.0	0.068
1.5KEG10A	1.5KEG10CA	8.55	9.50	10.50	1	10	14.5	103.0	0.073
1.5KEG11A	1.5KEG11CA	9.40	10.50	11.60	1	5	15.6	96.0	0.075
1.5KEG12A	1.5KEG12CA	10.20	11.40	12.60	1	5	16.7	90.0	0.078
1.5KEG13A	1.5KEG13CA	11.10	12.40	13.70	1	5	18.2	82.0	0.081
1.5KEG15A	1.5KEG15CA	12.80	14.30	15.80	1	5	21.2	71.0	0.084
1.5KEG16A	1.5KEG16CA	13.60	15.20	16.80	1	5	22.5	67.0	0.086
1.5KEG18A	1.5KEG18CA	15.30	17.10	18.90	1	5	25.2	59.5	0.088
1.5KEG20A	1.5KEG20CA	17.10	19.00	21.00	1	5	27.7	54.0	0.090
1.5KEG22A	1.5KEG22CA	18.80	20.90	23.10	1	5	30.6	49.0	0.092
1.5KEG24A	1.5KEG24CA	20.50	22.80	25.20	1	5	33.2	45.0	0.094
1.5KEG27A	1.5KEG27CA	23.10	25.70	28.40	1	5	37.5	40.0	0.096
1.5KEG30A	1.5KEG30CA	25.60	28.50	31.50	1	5	41.4	36.0	0.097
1.5KEG33A	1.5KEG33CA	28.20	31.40	34.70	1	5	45.7	33.0	0.098
1.5KEG36A	1.5KEG36CA	30.80	34.20	37.80	1	5	49.9	30.0	0.099
1.5KEG39A	1.5KEG39CA	33.30	37.10	41.00	1	5	53.9	28.0	0.100
1.5KEG43A	1.5KEG43CA	36.80	40.90	45.20	1	5	59.3	25.3	0.101
1.5KEG47A	1.5KEG47CA	40.20	44.70	49.40	1	5	64.8	23.2	0.101
1.5KEG51A	1.5KEG51CA	43.60	48.50	53.60	1	5	70.1	21.4	0.102
1.5KEG56A	1.5KEG56CA	47.80	53.20	58.80	1	5	77.0	19.5	0.103
1.5KEG62A	1.5KEG62CA	53.0	58.9	65.1	1	5	85.0	17.70	0.104
1.5KEG68A	1.5KEG68CA	58.1	64.6	71.4	1	5	92.0	16.30	0.104
1.5KEG75A	1.5KEG75CA	64.7	71.3	78.8	1	5	103.0	14.60	0.105
1.5KEG82A	1.5KEG82CA	70.1	77.9	86.1	1	5	113.0	13.30	0.105
1.5KEG91A	1.5KEG91CA	77.8	86.5	95.5	1	5	125.0	12.00	0.106
1.5KEG100A	1.5KEG100CA	85.5	95.0	105.0	1	5	137.0	11.00	0.106
1.5KEG110A	1.5KEG110CA	94.0	105.0	116.0	1	5	152.0	9.90	0.107
1.5KEG120A	1.5KEG120CA	102.0	114.0	126.0	1	5	165.0	9.10	0.107
1.5KEG130A	1.5KEG130CA	111.0	124.0	137.0	1	5	179.0	8.40	0.107
1.5KEG150A	1.5KEG150CA	128.0	143.0	158.0	1	5	207.0	7.20	0.108
1.5KEG160A	1.5KEG160CA	136.0	152.0	168.0	1	5	219.0	6.80	0.108
1.5KEG170A	1.5KEG170CA	145.0	162.0	179.0	1	5	234.0	6.40	0.108
1.5KEG180A	1.5KEG180CA	154.0	171.0	189.0	1	5	246.0	6.10	0.108
1.5KEG200A	1.5KEG200CA	171.0	190.0	210.0	1	5	274.0	5.50	0.108
1.5KEG220A	1.5KEG220CA	185.0	209.0	231.0	1	5	328.0	4.60	0.108
1.5KEG250A	1.5KEG250CA	214.0	237.0	263.0	1	5	344.4	5.00	0.110
1.5KEG300A	1.5KEG300CA	256.0	285.0	315.0	1	5	414.0	5.00	0.110
1.5KEG350A	1.5KEG350CA	300.0	332.0	368.0	1	5	482.0	4.00	0.110
1.5KEG400A	1.5KEG400CA	342.0	380.0	420.0	1	5	548.0	4.00	0.110

Notes: 1. Suffix'C' denotes bidirectional device . Suffix'A' denotes 5% tolerance device 后缀带C的为双向。后缀带A的为电压容忍范围5%。

2. For bidirectional devices having VR of 10volts and under ,the IR limit is doubled .

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