

1500W Transient Voltage Suppressor



SMD Diodes Specialist

1.5KE-G Series

Stand-off Voltage: 6.8 ~ 440V

Power Dissipation: 1500 Watts

RoHS Device

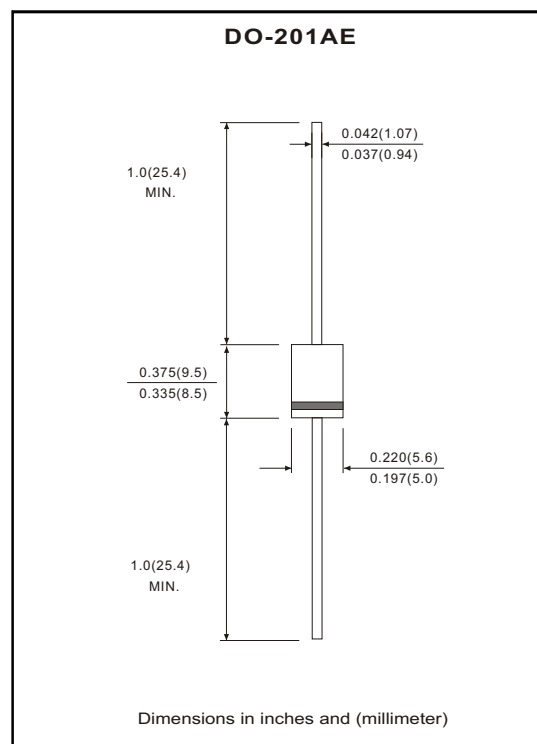


Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- 1500W, surge capability at 1mS.
- Excellent clamping capability.
- Low Zener impedance.
- Fast response time: typically less than 1.0pS from 0 volt to BV min.
- Typical I_R less than 1 μ A above 10V.
- High temperature soldering guaranteed:
260°C/10S/0.375"(9.5mm) lead
length/5lbs.,(2.3KG) tension

Mechanical Data

- Case: Molded plastic DO-201AE
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode except bipolar
- Weight: 1.2 gram



Maximum Ratings and Electrical Characteristics

Parameter	Symbol	Value	Unit
Peak power dissipation at $T_A=25^{\circ}\text{C}$ $T_P=1\text{mS}$ (Note 1)	P_{PK}	Maximum 1500	W
Steady state power dissipation at $T_L=75^{\circ}\text{C}$ Lead length 0.375" (9.5mm) (Note 2)	P_D	5.0	W
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load (JEDEC method) (Note 3)	I_{FSM}	200	A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +175	$^{\circ}\text{C}$

NTOES:

(1) Non-repetitive current pulse, per fig.3 and derated above $T_A=25^{\circ}\text{C}$ per fig. 2.

(2) Mounted on copper land area of 0.79in²(20mm²).

(3) 8.3mS single half-sine wave, duty cycle=4 pulses per minute maximum.

(4) For bidirectional use C suffix for 10% tolerance, CA suffix for 5% tolerance.

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RATING AND CHARACTERISTIC (1.5KE-G Series)

Part No.	Breakdown Voltage			Working Peak Reverse Voltage V _{RWM} (V)	Maximum Reverse Leakage at V _{RWM} I _R (μA)	Maximum Reverse Current I _{RSM} (A)	Maximum Clamping Voltage V _{RWM} (V)	Maximum Temperature Coefficient of V _{BR} (% C)
	V _{BR} (V)		@ I _T (mA)					
	MIN.	MAX.						
1.5KE6.8(C)-G	6.12	7.48	10	5.50	1000	139.0	10.8	0.057
1.5KE6.8(C)A-G	6.45	7.14	10	5.80	1000	143.0	10.5	0.057
1.5KE7.5(C)-G	6.75	8.25	10	6.05	500	128.0	11.7	0.061
1.5KE7.5(C)A-G	7.13	7.88	10	6.40	500	132.0	11.3	0.061
1.5KE8.2(C)-G	7.38	9.02	10	6.63	200	120.0	12.5	0.065
1.5KE8.2(C)A-G	7.79	8.00	10	7.02	200	124.0	12.1	0.065
1.5KE9.1(C)-G	8.19	10.0	1.0	7.37	50	109.0	13.8	0.068
1.5KE9.1(C)A-G	8.65	9.55	1.0	7.78	50	112.0	13.4	0.068
1.5KE10(C)-G	9.00	11.0	1.0	8.10	10	100.0	15.0	0.073
1.5KE10(C)A-G	9.50	10.5	1.0	8.55	10	103.0	14.5	0.073
1.5KE11(C)-G	9.90	12.1	1.0	8.92	5.0	93.0	16.2	0.075
1.5KE11(C)A-G	10.5	11.6	1.0	9.40	5.0	96.0	15.6	0.075
1.5KE12(C)-G	10.8	13.2	1.0	9.72	5.0	87.0	17.3	0.078
1.5KE12(C)A-G	11.4	12.6	1.0	10.2	5.0	90.0	16.7	0.078
1.5KE13(C)-G	11.7	14.3	1.0	10.5	5.0	79.0	19.0	0.081
1.5KE13(C)A-G	12.4	13.7	1.0	11.1	5.0	82.0	18.2	0.081
1.5KE15(C)-G	13.5	16.5	1.0	12.1	5.0	68.0	22.0	0.084
1.5KE15(C)A-G	14.3	15.8	1.0	12.8	5.0	71.0	21.2	0.084
1.5KE16(C)-G	14.4	17.6	1.0	12.9	5.0	64.0	23.5	0.086
1.5KE16(C)A-G	15.2	16.8	1.0	13.6	5.0	67.0	22.5	0.086
1.5KE18(C)-G	16.2	19.8	1.0	14.5	5.0	56.5	26.5	0.088
1.5KE18(C)A-G	17.1	18.9	1.0	15.3	5.0	59.5	25.2	0.088
1.5KE20(C)-G	18.0	22.0	1.0	16.2	5.0	51.5	29.1	0.090
1.5KE20(C)A-G	19.0	21.0	1.0	17.1	5.0	54.0	27.7	0.090
1.5KE22(C)-G	19.8	24.2	1.0	17.8	5.0	47.0	31.9	0.092
1.5KE22(C)A-G	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1.5KE24(C)-G	21.6	26.4	1.0	19.4	5.0	43.0	34.7	0.094
1.5KE24(C)A-G	22.8	25.2	1.0	20.5	5.0	45.0	33.2	0.094
1.5KE27(C)-G	24.3	29.7	1.0	21.8	5.0	38.2	39.1	0.096
1.5KE27(C)A-G	25.7	28.4	1.0	23.1	5.0	403.0	37.5	0.096
1.5KE30(C)-G	27.0	33.0	1.0	24.3	5.0	34.5	43.5	0.097
1.5KE30(C)A-G	28.5	31.5	1.0	25.6	5.0	36.0	41.4	0.097
1.5KE33(C)-G	29.7	36.3	1.0	26.8	5.0	31.5	47.7	0.098
1.5KE33(C)A-G	31.4	34.7	1.0	28.2	5.0	33.0	45.7	0.098
1.5KE36(C)-G	32.4	39.6	1.0	29.1	5.0	29.0	52.0	0.099
1.5KE36(C)A-G	34.2	37.8	1.0	30.8	5.0	30.0	49.0	0.099
1.5KE39(C)-G	35.1	42.9	1.0	31.6	5.0	26.5	56.4	0.100
1.5KE39(C)A-G	37.1	41.0	1.0	33.3	5.0	28.0	53.9	0.100
1.5KE43(C)-G	38.7	47.3	1.0	34.8	5.0	24.0	61.9	0.101
1.5KE43(C)A-G	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1.5KE47(C)-G	42.3	51.7	1.0	36.1	5.0	22.2	67.8	0.101
1.5KE47(C)A-G	44.7	49.4	1.0	40.2	5.0	23.2	64.8	0.101
1.5KE51(C)-G	45.9	56.1	1.0	41.3	5.0	20.4	73.5	0.102
1.5KE51(C)A-G	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102
1.5KE56(C)-G	50.4	61.8	1.0	45.4	5.0	18.6	80.5	0.103
1.5KE56(C)A-G	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103
1.5KE62(C)-G	55.8	68.2	1.0	50.2	5.0	16.9	89.0	0.104
1.5KE62(C)A-G	58.9	65.1	1.0	53.0	5.0	17.7	85.0	0.104

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Part No.	Breakdown Voltage			Working Peak Reverse Voltage V _{RWM} (V)	Maximum Reverse Leakage at V _{RWM} I _r (μA)	Maximum Reverse Current I _{RSM} (A)	Maximum Clamping Voltage V _{RWM} (V)	Maximum Temperature Coefficient of V _{BR} (%C)
	V _{BR} (V)		@I _T (mA)					
	MIN.	MAX.						
1.5KE68(C)-G	61.2	74.8	1.0	55.1	5.0	15.3	98.0	0.104
1.5KE68(C)A-G	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1.5KE75(C)-G	67.5	82.5	1.0	60.7	5.0	13.9	108.0	0.105
1.5KE75(C)A-G	71.3	78.8	1.0	64.1	5.0	14.6	103.0	0.105
1.5KE82(C)-G	73.8	90.2	1.0	66.4	5.0	12.7	118.0	0.105
1.5KE82(C)A-G	77.9	86.1	1.0	70.1	5.0	13.3	113.0	0.105
1.5KE91(C)-G	81.9	100.0	1.0	73.7	5.0	11.4	131.8	0.106
1.5KE91(C)A-G	86.5	95.5	1.0	77.8	5.0	12.0	125.0	0.106
1.5KE100(C)-G	90.0	110.0	1.0	81.0	5.0	10.4	144.0	0.106
1.5KE100(C)A-G	95.0	105.0	1.0	85.5	5.0	11.0	137.0	0.106
1.5KE110(C)-G	99.0	121.0	1.0	89.2	5.0	9.5	158.0	0.107
1.5KE110(C)A-G	106.0	116.0	1.0	94.0	5.0	9.9	152.0	0.107
1.5KE120(C)-G	108.0	132.0	1.0	97.2	5.0	8.7	173.0	0.107
1.5KE120(C)A-G	114.0	126.0	1.0	102.0	5.0	9.1	165.0	0.107
1.5KE130(C)-G	117.0	143.0	1.0	106.0	5.0	8.0	187.0	0.107
1.5KE130(C)A-G	124.0	137.0	1.0	111.0	5.0	8.4	179.0	0.107
1.5KE150(C)-G	136.0	165.0	1.0	121.0	5.0	7.0	215.0	0.108
1.5KE150(C)A-G	143.0	158.0	1.0	128.0	5.0	7.2	207.0	0.108
1.5KE160(C)-G	144.0	176.0	1.0	130.0	5.0	6.5	230.0	0.108
1.5KE160(C)A-G	152.0	168.0	1.0	136.0	5.0	6.8	219.0	0.108
1.5KE170(C)-G	153.0	187.0	1.0	138.0	5.0	6.2	244.0	0.108
1.5KE170(C)A-G	162.0	179.0	1.0	145.0	5.0	6.4	234.0	0.108
1.5KE180(C)-G	162.0	198.0	1.0	146.0	5.0	5.8	258.0	0.108
1.5KE180(C)A-G	171.0	189.0	1.0	154.0	5.0	6.1	246.0	0.108
1.5KE200(C)-G	180.0	220.0	1.0	162.0	5.0	5.2	287.0	0.108
1.5KE200(C)A-G	190.0	210.0	1.0	171.0	5.0	5.5	274.0	0.108
1.5KE220(C)-G	196.0	242.0	1.0	175.0	5.0	4.40	344.0	0.108
1.5KE220(C)A-G	209.0	231.0	1.0	185.0	5.0	4.60	328.0	0.108
1.5KE250(C)-G	225.0	275.0	1.0	202.0	5.0	4.20	360.0	0.110
1.5KE250(C)A-G	237.0	263.0	1.0	214.0	5.0	4.40	344.0	0.110
1.5KE300(C)-G	270.0	330.0	1.0	243.0	5.0	3.20	430.0	0.110
1.5KE300(C)A-G	285.0	315.0	1.0	256.0	5.0	3.60	414.0	0.110
1.5KE350(C)-G	315.0	385.0	1.0	284.0	5.0	3.00	504.0	0.110
1.5KE350(C)A-G	333.0	368.0	1.0	300.0	5.0	3.10	482.0	0.110
1.5KE400(C)-G	360.0	440.0	1.0	324.0	5.0	2.60	574.0	0.110
1.5KE400(C)A-G	380.0	420.0	1.0	342.0	5.0	2.70	548.0	0.110
1.5KE440(C)-G	396.0	484.0	1.0	356.0	5.0	2.4	631.0	0.110
1.5KE440(C)A-G	418.0	462.0	1.0	376.0	5.0	2.50	602.0	0.110

NOTES:

1. V_{BR} measured after I_T applied for 300μS, I_T=square wave pulse or equivalent.
2. Surge current wave form per fig.3 and derated per fig.2.
3. V_F=3.5V at I_F=50A (P6KE6.8-G thru P6KE91A-G)
V_F=5.0V at I_F=50A (p6KE100-G thru P6KE400A-G on ½ square or equivalent sine wave.
P_W=8.3mS, duty cycle=4 pulses per minute max..
4. For bipolar types having V_{RWM} of 10 Volts and under, the I_R limit is doubled.

REV:A

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RATING AND CHARACTERISTIC CURVES (1.5KE-G Series)

Fig.1 Peak Pulse Power Rating Curve

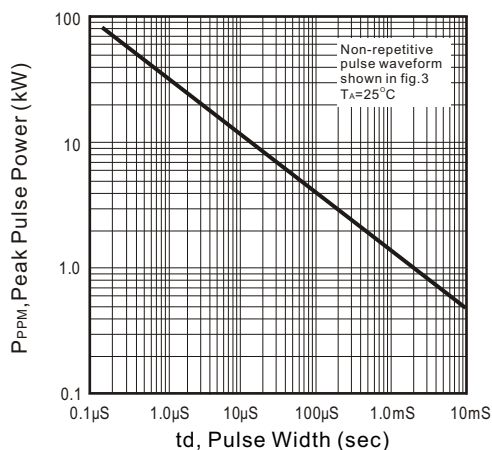


Fig.2 Pulse Derating Curve

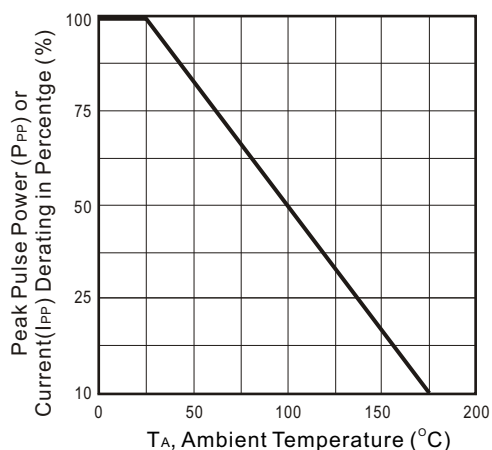


Fig.3 Pulse Wave Form

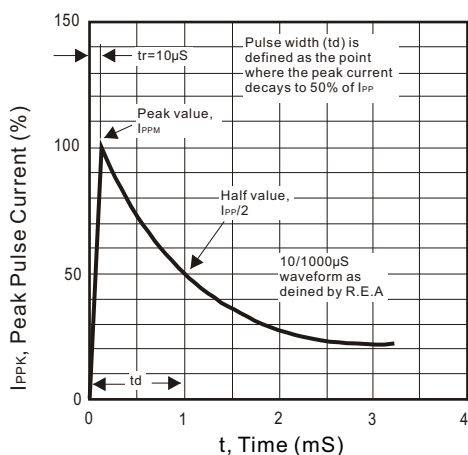


Fig.4 Typical Junction Capacitance Unidirectional

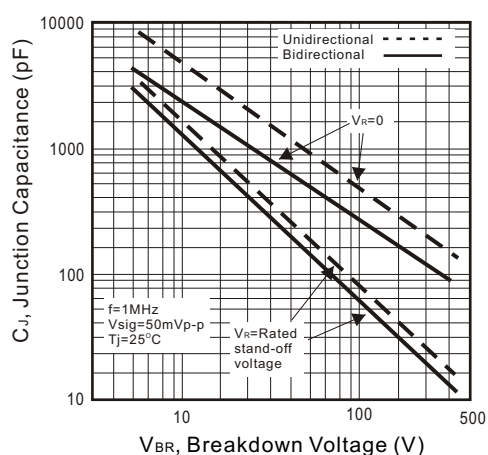


Fig.5 Steady State Power Derating Curve

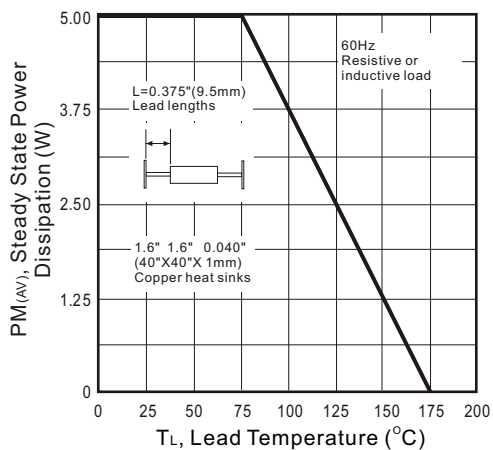
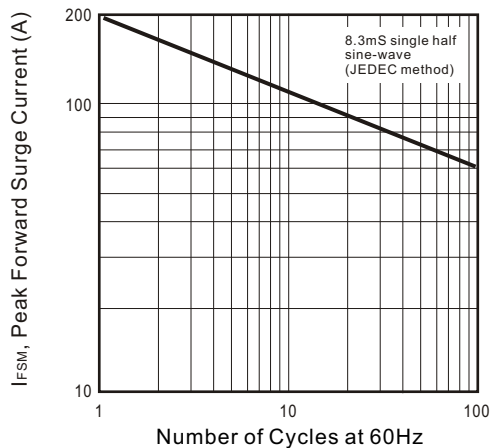


Fig.6 Maximum Non-repetitive Forward Surge Current Unidirectional



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Fig.7 Incremental Clamping Voltage Curve
Unidirectional

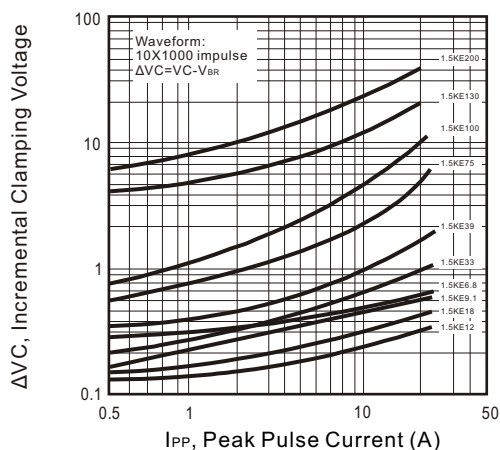


Fig.8 Incremental Clamping Voltage Curve
Unidirectional

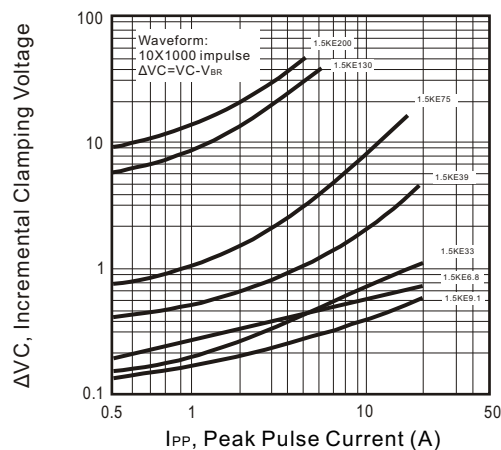


Fig.9 Incremental Clamping Voltage Curve
Bidirectional

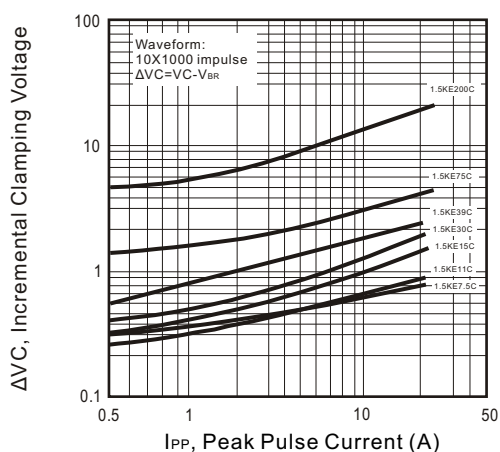


Fig.10 Incremental Clamping Voltage Curve
Bidirectional

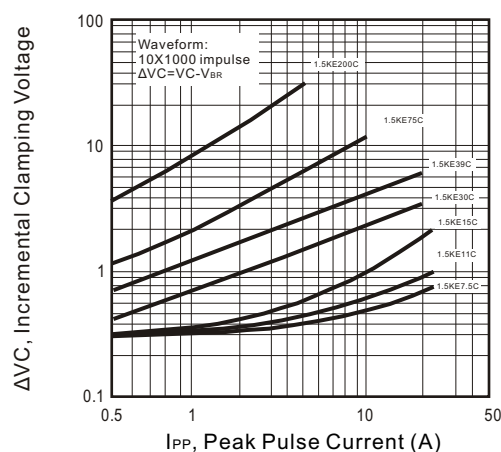


Fig.11 Instantaneous Forward Voltage
Characteristics Curve

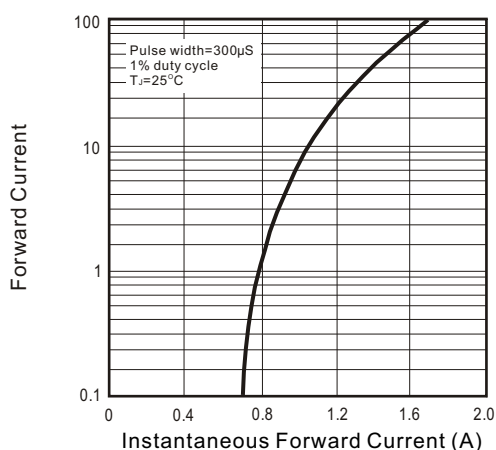
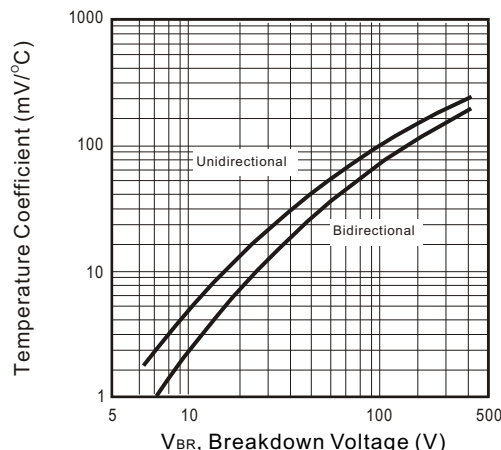


Fig.12 Breakdown Voltage Temperature
Coefficient Curve





**Стандарт
Электрон
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

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