VR'F Series

2·25W 3·5V to 30V ± 5% Nominal

(T_{amb} = 25°C unless otherwise stated)

Type Number	Working voltage			Differential resistance		Temp. coeff. of working voltage		Reverse current
	V_{Z1} nom	V_{Z1} min	V_{Z1} max	r_{Z1} min	r_{Z1} max	S_Z min	S_Z max	I_R max
	V	V	V	Ω	Ω	%/°C	%/°C	μA
VR35F	3·5	2·9	4·1	15	22	−0·105	−0·031	200
VR425F	4·25	3·9	4·6	14	19	−0·067	0·003	200
VR475F	4·75	4·4	5·1	12	18	−0·048	0·023	150
VR525F	5·25	4·9	5·6	6	17	−0·030	0·040	150
VR575F	5·75	5·4	6·1	0	10	−0·017	0·054	100
VR625F	6·25	5·9	6·6	0	4	−0·006	0·065	100
VR7F	7·0	6·4	7·6	0	4	0·005	0·078	50
VR8F	8·0	7·4	8·6	0	4	0·015	0·087	20
VR9F	9·0	8·4	9·6	0	4	0·020	0·091	20
VR10F	10·0	9·4	10·6	0	5	0·022	0·093	20
VR11F	11·0	10·4	11·6	0	6	0·024	0·094	20
VR12F	12·0	11·4	12·7	0	11	0·025	0·095	20
VR13F	13·0	12·4	14·1	2	12	0·030	0·100	20
VR15F	15·0	13·8	15·6	2	17	0·030	0·100	20
VR16F	16·0	15·3	17·1	4	19	0·035	0·105	20
VR18F	18·0	16·8	19·1	7	22	0·035	0·105	20
VR20F	20·0	18·8	21·2	10	26	0·040	0·110	20
VR22F	22·0	20·8	23·3	13	29	0·040	0·110	20
VR24F	24·0	22·7	25·9	16	34	0·045	0·115	20
VR27F	27·0	25·1	28·9	20	39	0·045	0·115	20
VR30F	30·0	28·0	32·0	24	44	0·050	0·120	20
Test conditions	← I_Z = 20mA →							V_R = 2V
						T_{case} = 25°C to 60°C		T_{amb} = 100°C

VR'E Series

Maintenance type only

5·8W 3·5V to 30V ± 5% Nominal

(T_{case} = 25°C unless otherwise stated)

Type Number	Working voltage			Differential resistance		Temp. coeff. of working voltage		Reverse current
	V_{Z1} nom	V_{Z1} min	V_{Z1} max	r_{Z1} min	r_{Z1} max	S_Z min	S_Z max	I_R max
	V	V	V	Ω	Ω	%/°C	%/°C	μA
VR35E	3·5	2·9	4·1	15	22	−0·105	−0·031	200
VR425E	4·25	3·9	4·6	14	19	−0·067	0·003	200
VR475E	4·75	4·4	5·1	12	18	−0·048	0·023	150
VR525E	5·25	4·9	5·6	6	17	−0·030	0·040	150
VR575E	5·75	5·4	6·1	0	10	−0·017	0·054	100
VR625E	6·25	5·9	6·6	0	4	−0·006	0·065	100
VR7E	7·0	6·4	7·6	0	4	0·005	0·078	50
VR8E	8·0	7·4	8·6	0	4	0·015	0·087	20
VR9E	9·0	8·4	9·6	0	4	0·020	0·091	20
VR10E	10·0	9·4	10·6	0	5	0·022	0·093	20
VR11E	11·0	10·4	11·6	0	6	0·024	0·094	20
VR12E	12·0	11·4	12·7	0	11	0·025	0·095	20
VR13E	13·0	12·4	14·1	2	12	0·030	0·100	20
VR15E	15·0	13·8	15·6	2	17	0·030	0·100	20
VR16E	16·0	15·3	17·1	4	19	0·035	0·105	20
VR18E	18·0	16·8	19·1	7	22	0·035	0·105	20
VR20E	20·0	18·8	21·2	10	26	0·040	0·110	20
VR22E	22·0	20·8	23·3	13	29	0·040	0·110	20
VR24E	24·0	22·7	25·9	16	34	0·045	0·115	20
VR27E	27·0	25·1	28·9	20	39	0·045	0·115	20
VR30E	30·0	28·0	32·0	24	44	0·050	0·120	20
Test conditions	← I_Z = 20mA →							V_R = 2V
						T_{case} = 25°C to 60°C		T_{case} = 100°C

BZY93 Series

20W 6·8V to 33V ± 5% Nominal

(T_{case} = 25 °C unless otherwise stated)

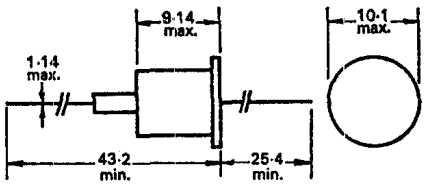
Type Number	Working voltage*			Differential resistance*	Temp. coeff of working voltage*		Reverse current		Forward voltage
	1	2	3	4	5	6	7	8	9
	V_{Z1} nom	V_{Z1} min	V_{Z1} max	r_{Z1} max	S_Z typ.	I_{Z1}	I_{R5} max	V_R	V_F max
BZY93	V	V	V	Ω	mV/°C	A	μA	V	V
C6V8	6·8	6·4	7·2	0·2	2·5	2·0	100	2·0	1·5
C7V5	7·5	7·1	7·9	0·3	3·0	2·0	100	2·0	1·5
C8V2	8·2	7·7	8·7	0·3	4·0	2·0	100	5·6	1·5
C9V1	9·1	8·6	9·6	0·5	5·0	1·0	50	6·2	1·5
C10	10	9·4	10·6	0·5	7·0	1·0	50	6·8	1·5
C11	11	10·4	11·6	1·0	7·5	1·0	50	7·5	1·5
C12	12	11·4	12·6	1·0	8·0	1·0	50	8·2	1·5
C13	13	12·4	14·1	1·0	8·5	1·0	50	9·1	1·5
C15	15	13·9	15·6	1·2	10	1·0	50	10	1·5
C16	16	15·4	17·1	1·2	11	0·5	50	11	1·5
C18	18	16·9	19·1	1·5	12	0·5	50	12	1·5
C20	20	18·9	21·2	1·5	14	0·5	50	13	1·5
C22	22	20·8	23·3	1·8	16	0·5	50	15	1·5
C24	24	22·7	25·9	2·0	18	0·5	50	16	1·5
C27	27	25·1	28·9	2·0	21	0·5	50	18	1·5
C30	30	28·0	32·0	2·5	25	0·5	50	20	1·5
C33	33	31·0	35·0	3·0	30	0·5	50	22	1·5
	← I_{Z1} as column 6 →						V_R as column 8		I_F = 5·0A
					T_{case} 25 °C to 60 °C				

* Measurement time = 0·1 sec. maximum

VZ'F, VR'F

(JEDEC outline DO-1, 2, 3)

Outline and dimensions
(Third angle projection)

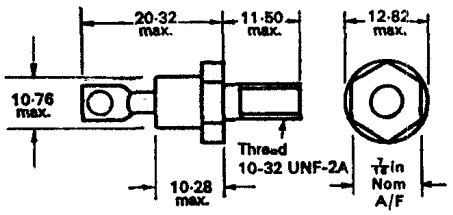


All dimensions in millimetres
For detail dimensions see BS3934 SO-16

VR'E, BZY 93

(JEDEC outline DO-4)

Outline and dimensions
(Third angle projection)



All dimensions in millimetres
For detail dimensions see BS 3934 SO-10A