

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	
	Vz1 nom	Vz1 min	Vz1 max	rz1 min	rz1 max	Sz min	Sz 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 →							T _{case} = 25°C to 60°C	V _R = 2V T _{amb} = 100°C

VR'E Series

5.8W 3.5V to 30V ± 5% Nominal

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

Maintenance type only

Type Number	Working voltage			Differential resistance		Temp. coeff. of working voltage		Reverse current	
	Vz1 nom	Vz1 min	Vz1 max	rz1 min	rz1 max	Sz min	Sz 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 →							T _{case} = 25°C to 60°C	V _R = 2V T _{amb} = 100°C

BZY93 Series

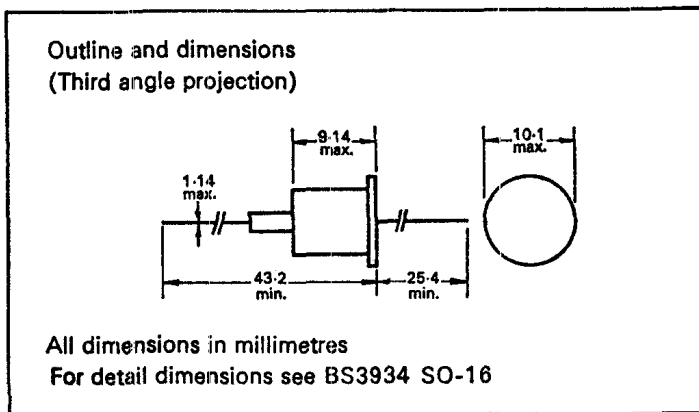
20W 6.8V to 33V $\pm 5\%$ Nominal

($T_{case} = 25^\circ\text{C}$ unless otherwise stated)

Type Number	Working voltage*			Differential resistance*	Temp. coeff of working voltage*		Reverse current		Forward voltage	
	1	2	3							4
	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	
	V	V	V	Ω	mV/ $^\circ\text{C}$	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	
					$T_{case} 25^\circ\text{C}$ to 60°C					

* Measurement time = 0.1 sec. maximum

VZ'F, VR'F (JEDEC outline DO-1, 2, 3)



VR'E, BZY 93 (JEDEC outline DO-4)

