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SILIICON PLANAR ZENER DIODES

BZX83C
2V7 to 56V
500mW

DO- 35
Glass Axial Package

The glass passivated diode chip in the hermetically sealed glass package with double studs provides excellent stability and reliability.

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation	P_{TA}	500	mW
Junction Temperature	T_j	175	°C
Storage Temperature	T_{stg}	- 55 to +175	°C
Thermal Resistance - Junction to Ambient in free air	$R_{th(j-a)}$	300	°C/W

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

Forward Voltage @ I_F=200mA V_F < 1.2 V

Device	V_{ZT} @ I_{ZT}* min (V)	max (V)	r_{ZT} @ I_{ZT}* max (Ω)	I_{ZT} (mA)	r_{ZK} @ I_{ZK} max (Ω)	I_{ZK} (mA)	Temp. Coeff of Zener Voltage typ (%/°C)	I_R @ T_a 25°C max (μA)	V_R (V)	I_{ZM} max (mA)
BZX83C 2V7	2.50	2.90	90	5.0	600	1.0	-0.07	100	1.0	135
BZX83C 3V0	2.80	3.20	90	5.0	600	1.0	-0.07	60	1.0	125
BZX83C 3V3	3.10	3.50	90	5.0	600	1.0	-0.06	30	1.0	115
BZX83C 3V6	3.40	3.80	90	5.0	600	1.0	-0.06	20	1.0	105
BZX83C 3V9	3.70	4.10	90	5.0	600	1.0	-0.05	10	1.0	95
BZX83C 4V3	4.00	4.60	80	5.0	600	1.0	-0.03	5	1.0	90
BZX83C 4V7	4.40	5.00	80	5.0	600	1.0	-0.01	2	1.0	85
BZX83C 5V1	4.80	5.40	60	5.0	550	1.0	+0.01	1	1.0	75
BZX83C 5V6	5.20	6.00	40	5.0	450	1.0	+0.03	1	1.0	70
BZX83C 6V2	5.80	6.60	10	5.0	200	1.0	+0.04	1	2.0	64
BZX83C 6V8	6.40	7.20	8	5.0	150	1.0	+0.05	1	3.0	58
BZX83C 7V5	7.00	7.90	7	5.0	50	1.0	+0.05	1	3.5	53
BZX83C 8V2	7.70	8.70	7	5.0	50	1.0	+0.06	1	4.0	47
BZX83C 9V1	8.50	9.60	10	5.0	50	1.0	+0.06	1	5.0	43
BZX83C 10	9.40	10.60	15	5.0	70	1.0	+0.07	1	6.0	40
BZX83C 11	10.40	11.60	20	5.0	70	1.0	+0.07	1	8.2	36
BZX83C 12	11.40	12.70	20	5.0	90	1.0	+0.07	1	9.1	32
BZX83C 13	12.40	14.10	25	5.0	110	1.0	+0.07	1	10	29
BZX83C 15	13.80	15.60	30	5.0	110	1.0	+0.08	1	11	27
BZX83C 16	15.30	17.10	40	5.0	170	1.0	+0.08	1	12	24
BZX83C 18	16.80	19.10	55	5.0	170	1.0	+0.08	1	13	21
BZX83C 20	18.80	21.20	55	5.0	220	1.0	+0.08	1	15	20
BZX83C 22	20.80	23.30	58	5.0	220	1.0	+0.08	1	16	18
BZX83C 24	22.80	25.60	80	5.0	220	1.0	+0.08	1	18	16
BZX83C 27	25.10	28.90	80	5.0	250	1.0	+0.09	1	20	14

***Pulse Condition : 20ms ≤ tp ≤50ms . Duty Cycle ≤2%**

Quality Semi-Conductors

BZX83C
2V7 to 56V
500mW

DO- 35
Glass Axial Package

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

Device	V_{ZT} @ I_{ZT}* min (V)	max (V)	r_{ZT} @ I_{ZT}* max (Ω)	I_{ZT} (mA)	r_{ZK} @ I_{ZK} max (Ω)	I_{ZK} (mA)	Temp. Coeff of Zener Voltage typ (%/°C)	I_R @ T_a 25°C max (μA)	V_R (V)	I_{ZM} max (mA)
BZX83C 30	28.00	32.00	90	5.0	250	1.0	+0.09	1	22	13
BZX83C 33	31.00	35.00	90	5.0	250	1.0	+0.09	1	24	12
BZX83C 36	34.00	38.00	90	5.0	250	1.0	+0.09	1	27	11
BZX83C 39	37.00	41.00	100	2.5	600	0.5	+0.09	1	30	10
BZX83C 43	40.00	46.00	100	2.5	700	0.5	+0.09	1	33	9.2
BZX83C 47	44.00	50.00	120	2.5	1000	0.5	+0.09	1	36	8.5
BZX83C 51	48.00	54.00	135	2.5	1000	0.5	+0.09	1	39	7.8
BZX83C 56	52.00	60.00	145	2.5	1000	0.5	+0.09	1	43	7.0

***Pulse Condition : 20ms ≤ tp ≤50ms . Duty Cycle ≤2%**