

Hyperabrupt Tuning Varactor Diodes

FEATURES

- Broad Tuning Range
- High Frequency Operation
- $\pm 10\%$ Standard Tolerance
- Glassivated For High Reliability

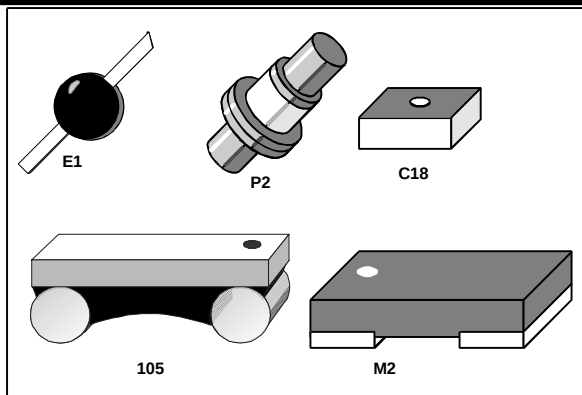
ENVIRONMENTAL RATINGS

(Maximum)

Operating Temperature.....-65 °C to +175°C

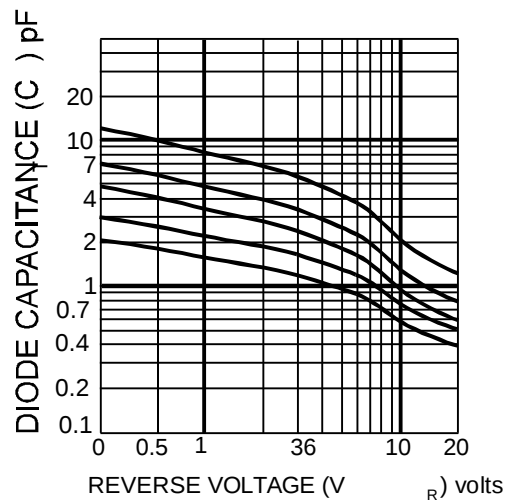
Storage Temperature.....-65 °C to +200°C

Soldering Temperature.....230 °C for 5 seconds



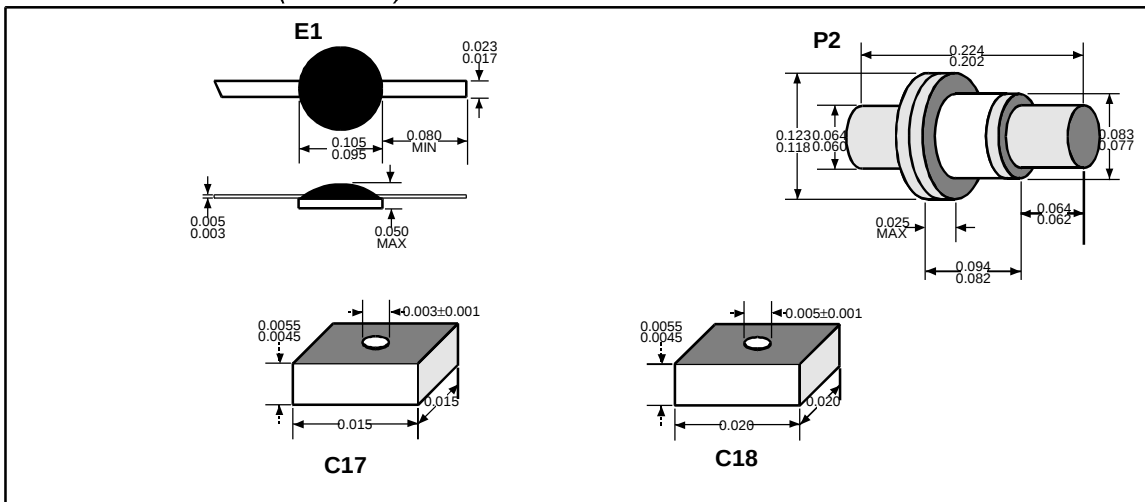
Electrical Specifications @ 25° C 22 VOLT SILICON SERIES

PART NUMBER	CASE STYLE	CT0 (pF) Typical See Note 2	CT4 (pF) See Note 2		CT20 (pF) See Note 2		Min Q At 50 MHz See Note 1
			MIN	MAX	MIN	MAX	
MP 6501	C17	2.0	0.70	0.90	0.13	0.25	500
MP 6502	P2	2.2	0.90	1.10	0.35	0.45	500
MP 6503	M2	2.1	0.80	1.00	0.25	0.35	500
MP 6504	E1	2.1	0.80	1.00	0.25	0.35	500
MP 6505	S1	2.2	0.90	1.10	0.35	0.45	500
MP 6506	C17	3.2	1.15	1.45	0.25	0.35	500
MP 6507	P2	3.4	1.35	1.65	0.45	0.55	500
MP 6508	M2	3.3	1.25	1.55	0.35	0.45	500
MP 6509	E1	3.3	1.25	1.55	0.35	0.45	500
MP 6510	S1	3.4	1.35	1.65	0.45	0.55	500
MP 6511	C17	4.7	1.60	2.00	0.35	0.50	400
MP 6512	P2	4.9	1.80	2.20	0.55	0.70	400
MP 6513	M2	4.8	1.70	2.10	0.45	0.60	400
MP 6514	E1	4.8	1.70	2.10	0.45	0.60	400
MP 6515	S1	4.9	1.80	2.20	0.55	0.70	400
MP 6516	C17	7.0	2.50	3.10	0.50	0.70	400
MP 6517	P2	7.2	2.70	3.30	0.70	0.90	400
MP 6518	M2	7.1	2.60	3.20	0.60	0.80	400
MP 6519	E1	7.1	2.60	3.20	0.60	0.80	400
MP 6520	S1	7.2	2.70	3.30	0.70	0.90	400
MP 6521	C18	13.8	4.30	5.30	0.80	1.10	400
MP 6522	P2	14.0	4.50	5.50	1.00	1.30	400
MP 6523	M2	13.9	4.40	5.40	0.90	1.20	400
MP 6524	E1	13.9	4.40	5.40	0.90	1.20	400
MP 6525	S1	14.0	4.50	5.50	1.00	1.30	400
Test Conditions		V _R = 0VV	R = -4VV		R = -20VV		R = -4V, 50MHz



TYPICAL CV CURVES - P2 PACKAGE

CASE DIMENSIONS (INCHES)



Specifications Notes:

1. Q is evaluated from the equation $Q = 10^6 / 2\pi F R_S C_J$ where F is MHz and R_S = series resistance measured at 1 GHz using transmission loss techniques and C_J = junction capacitance in pF measured at 1 MHz and 4 volts.
2. Total Capacitance (C_T) is the total capacitance of the junction (C_J) and the package capacitance (C_P).
3. Other capacitance values may be available on request .
4. Case is the heat sink end of each package and is the cathode .
5. Temperature coefficient: 300 ppm/°C at $V_R = -4$ volts .
6. Standard Tolerance is $\pm 10\%$. Other Tolerances Available upon request.