

In stripline packages, the MSI 1S3113A series high Q tuning varactors are single diodes and the 2C3113A series are back-to-back diodes with cathodes common. Diodes with larger values of Q than those specified below can be supplied on special order. Diodes with closer tolerance capacitance values and with narrow capacitance tuning ratios can be supplied in matched sets

for demanding tracking applications. With a reverse voltage rating of 31 volts, the diodes can be operated to the maximum bias 30 volt rating where the low reverse leakage current minimizes the effect of bias current modulation. In epoxy encapsulated packages, the low inductance stripline tuning diodes are suitable for applications into the microwave range.

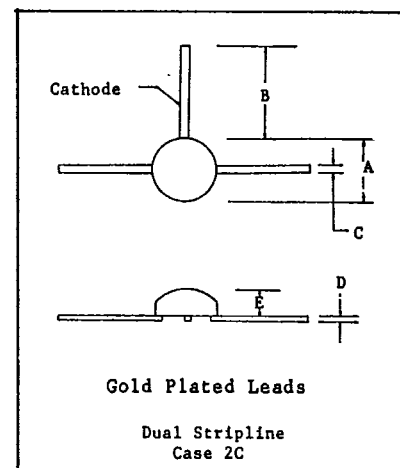
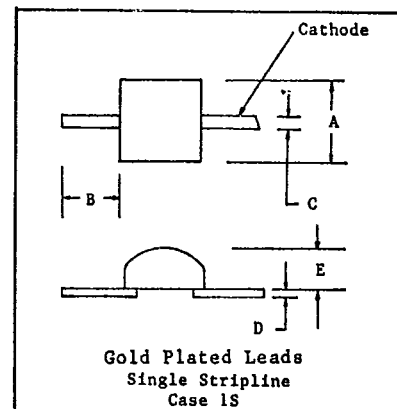
## GENERAL SPECIFICATIONS (TA = 25°C)

Ratings	Symbol	Value
Reverse Voltage	VR	31 Vdc min @ 1 uA
Reverse Voltage Leakage Current	IR	0.02 uA max @ 30V
Case Capacitance	Cc	0.2 pf Nominal
Series Inductance	Ls	2.0 nh Typical

## ELECTRICAL CHARACTERISTICS (TA = 25°) - Per Section

Single Chip	Back-to-Back	Diode Cap. CT* ±10% @4V/1 MHz	Tuning Ratio(TR) C2/C30 @ 1 MHz	Fig of Merit Q @4V/50 MHz
Type No.	Type No.	pf	min/typ	min
1S3113A	2C3113A	1.8	2.00/2.80	750
1S3114A	2C3114A	2.2	2.10/2.85	700
1S3115A	2C3115A	2.7	2.20/2.90	650
1S3116A	2C3116A	3.3	2.25/2.95	600
1S3117A	2C3117A	3.9	2.30/3.00	600
1S3118A	2C3118A	4.7	2.35/3.05	550
1S3119A	2C3119A	5.6	2.40/3.05	550
1S3120A	2C3120A	6.8	2.45/3.10	500
1S3122A	2C3122A	8.2	2.50/3.10	500
1S3124A	2C3124A	10.0	2.55/3.10	450
1S3126A	2C3126A	12.0	2.50/3.10	450
1S3128A	2C3128A	15.0	2.55/3.15	450
1S3130A	2C3130A	18.0	2.55/3.15	350
1S3134A	2C3134A	22.0	2.55/3.15	300
1S3136A	2C3136A	27.0	2.60/3.15	300
1S3138A	2C3138A	33.0	2.60/3.20	250
1S3140A	2C3140A	39.0	2.65/3.20	250
1S3142A	2C3142A	47.0	2.65/3.20	200
1S3144A	2C3144A	56.0	2.70/3.20	175
1S3146A	-	68.0	2.70/3.20	150
1S3148A	-	82.0	2.75/3.20	125
1B3150A	-	100.0	2.80/3.20	100

\*To specify CT, Total Capacitance, ±5%, replace suffix A with B; for CT ±2%, replace A with C.



Case Dim	Inches				Millimeters			
	1S		2C		1S		2C	
	min	max	min	max	min	max	min	max
A	0.094	0.103	0.121	0.129	2,39	2,62	3,07	3,28
B	0.090	0.110	0.240	0.260	2,29	2,75	6,10	6,60
C	0.018	0.022	0.018	0.022	0,46	0,56	0,46	0,56
D	0.003	0.006	0.003	0.006	0,08	0,15	6,10	6,60
E	0.031	0.045	0.060	0.080	0,79	1,14	1,52	2,03