

SPRAGUE-GOODMAN ELECTRONICS, INC.

SUPER HYPERABRUPT TUNING VARACTOR DIODES SURFACE MOUNT LOW PARASITIC (SMLP) PACKAGES

FEATURES

- Mesa Epitaxial Silicon Construction
- Silicon Dioxide Passivated
- Fits Footprint for SOD-323, SOD-123 and smaller
- High Frequency (VHF to 8 GHz)
- Available on Carrier and Reel
- Available in chip form (add suffix -000)
- Two package styles including lower cost, flat top version
- Alternate notched termination version available, contact factory for outline drawing

SPECIFICATIONS

Reverse breakdown voltage (at 10 μ A DC) at 25°C: 12 V min
 Maximum reverse leakage current (at -10 V) at 25°C: 0.05 μ A DC
 Device dissipation (at 25°C): 250 mW (derated linearly to zero at +125°C)
 Operating Junction temperature: -65°C to +125°C
 Storage temperature: -65°C to +125°C

MODEL NUMBER	DIODE CAPACITANCE C_T (pF) at -1 V min	DIODE CAPACITANCE C_T (pF) at -2.5 V min max	DIODE CAPACITANCE C_T (pF) at -4 V max	DIODE CAPACITANCE C_T (pF) at -8 V max	Q min at -4 V (50 MHz)
GVD90001-XXX	36.0	18.0 27.0	12.0	6.2	400
GVD90002-XXX	26.0	13.0 20.0	9.0	4.7	500
GVD90003-XXX	17.0	8.5 13.0	6.0	3.2	600
GVD90004-XXX	13.0	6.5 10.0	4.5	2.7	750
GVD90005-XXX	9.0	4.5 6.5	3.0	1.7	900
GVD90006-XXX	4.0	2.0 3.0	1.5	1.0	1200
GVD90007-XXX	1.8	1.1 1.5	0.8	0.55	1400
GVD90008-XXX	1.2	0.8 1.1	0.6	0.45	1600
GVD90009-XXX	0.6	0.5 0.8	0.4	0.35	1800

MOUNTING PAD LAYOUT

TERMINATIONS (GOLD PLATED)

BOTTOM VIEW

DOT INDICATES CATHODE END

TOP VIEW

EPOXY ENCAPSULANT

SIDE VIEW FOR -01X

EPOXY ENCAPSULANT

SIDE VIEW FOR -11X

DASH NO.	A	B	C	C_1 max	D	K	L	M
-011	0.10 2.5	0.050 1.3	0.035 0.89	—	0.015 ± 0.004 0.38 ± 0.1	0.030 0.76	0.070 1.8	0.112 2.84
-111			—	0.050 1.3				
-012	0.12 3.0	0.060 1.5	0.035 0.89	—	0.020 ± 0.005 0.51 ± 0.1	0.030 0.76	0.080 2.0	0.132 3.35
-112			—	0.050 1.3				
-013	0.200 5.08	0.100 2.54	0.035 0.89	—	0.020 ± 0.005 0.51 ± 0.1	0.030 0.76	0.120 3.05	0.212 5.38
-113			—	0.050 1.3				
-014	0.075 1.9	0.050 1.3	0.035 0.89	—	0.015 ± 0.004 0.38 ± 0.1	0.030 0.76	0.070 1.8	0.087 2.2
-114			—	0.050 1.3				
-015	0.062 1.6	0.042 1.1	0.030 0.76	—	0.011 ± 0.003 0.28 ± 0.08	0.020 0.051	0.060 1.5	0.072 1.8
-115			—	0.050 1.3				

Dimensions are in in/mm
Tolerance is ±0.003/0.08 unless otherwise indicated

DS10-1