



LSP1000 thru LSP1012

**ENHANCED PERFORMANCE
SURFACE MOUNT "EPSM" PACKAGED DEVICES**
PRODUCT PREVIEW**DESCRIPTION**

Our EPSM packaged devices are designed for the most demanding commercial and Military requirements where the inconsistency of performance inherent in plastic surface mount packages cannot be tolerated. These package styles extend the surface mount construction format to 6 GHz for high performance wireless applications including VCO's, limiters, pin switches and pin attenuators. Select PIN diodes for switching, attenuation or limiting through 6 GHz. They are available in multiple chip configuration as well as outlines which directly replace SOT-23 and SOD-323 devices. Other devices and values are always available - contact our applications engineering department for more details.

KEY FEATURES

- Frequencies from VHF to 6 GHz
- Lower Parasitics
- Mil Grade Ceramic/Epoxy Amalgam Construction
- Dense SiO₂ Junction Passivation
- Superior Consistency/Repeatability
- Footprints Available for SOT-23/SOD-323/SOD-123
- Priced for Commercial Products
- Tape & Reel for Volume Pick & Place

IMPORTANT: For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

**PIN DIODE DEVICES FOR WIRELESS ATTENUATORS,
SWITCHES AND LIMITERS**
ABSOLUTE MAXIMUM RATINGS AT 25°C

Forward Current (I_F):	1 Amp (1μs Pulse)
Power Dissipation (P_D):	500 mW (Derate to 0 at max T_J)
Peak Inverse Volts (PIV):	Same as V_B
Junction Temp. (Operating):	-65°C to + 125°C
Storage Temp. (Non-Operating):	-65°C to + 125°C
Leakage:	<50 nA @ 80% V_B@ 25°C

TEST CONDITIONS:

V_B @ 10 μA	R_S @ 100 MHz
C_T @ 1 MHz	T_L @ I_F = 10 mA
I_R = 6 mA	

APPLICATIONS/BENEFITS

- High performance wireless surface mounting including:
- GSM
- TAGS
- WANS
- PCS
- AMPS
- DECT
- CELLULAR

TABLE 1

MODEL	VB	C _T @ V _R MAX.	R _S @ I _F MAX.	T _L TYP.	APPLIC- TION
LSP1000	> 35	.28 @ 5V	2.5Ω @ 5 mA	80nS	SWITCH
LSP1002	> 100	.32 @ 50V	4Ω @ 100 mA	1500nS	ATTENU- ATOR
LSP1004	> 35	.75 @ 20V	0.6Ω @ 10 mA	150nS	SWITCH
LSP1011	> 200V	.35 @ 50V	2Ω @ 100 mA	2000nS	ATTENU- ATOR
LSP1012	> 20V	.35pF @ 10V	1.8Ω @ 10 mA	5nS	LIMITER



EPSM AVAILABLE CONFIGURATIONS

Figure 1 Outline Style 150(X)

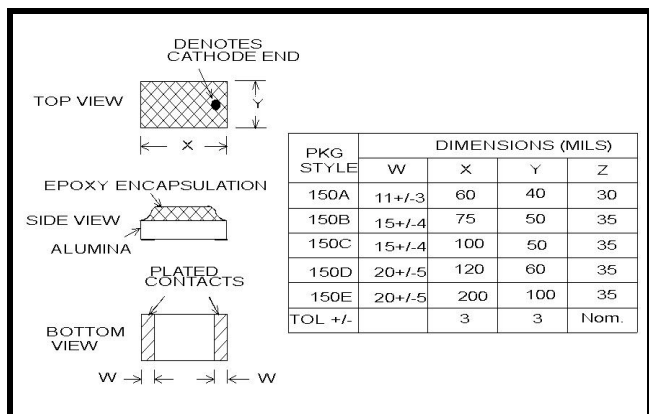


Figure 2 Outline Style 154

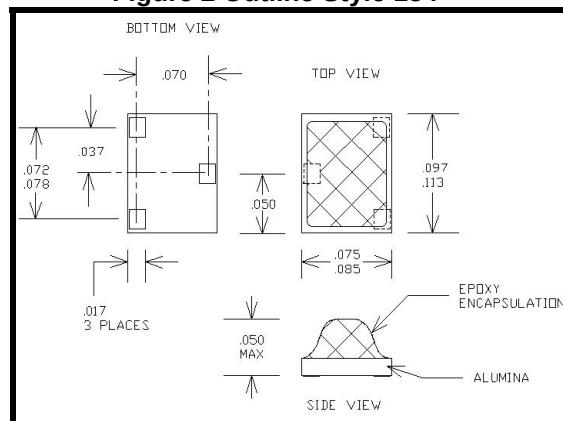


Figure 3 Outline Style 250(X)

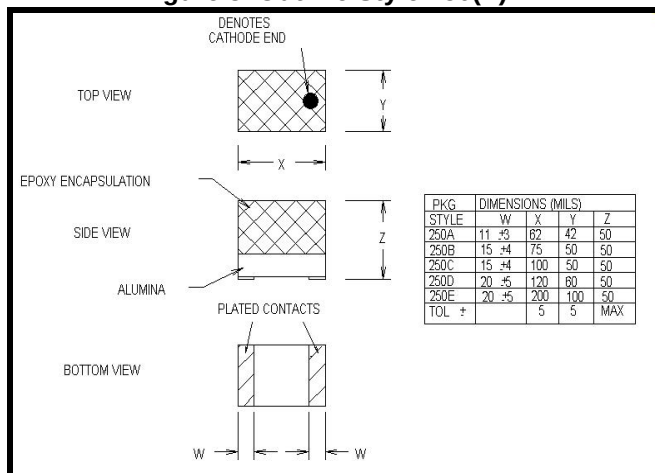


Figure 4 Outline Style 254

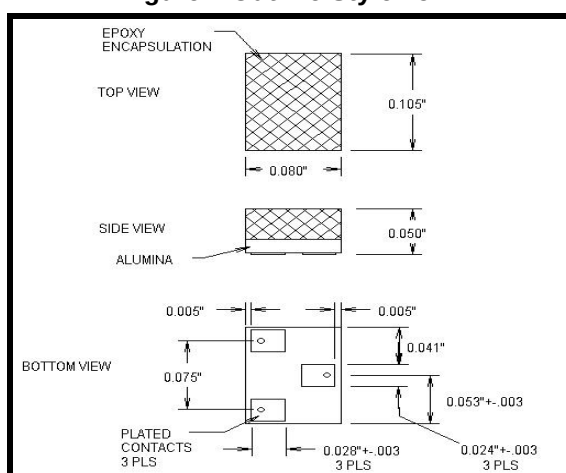


Figure 5 Outline Style 350(X)

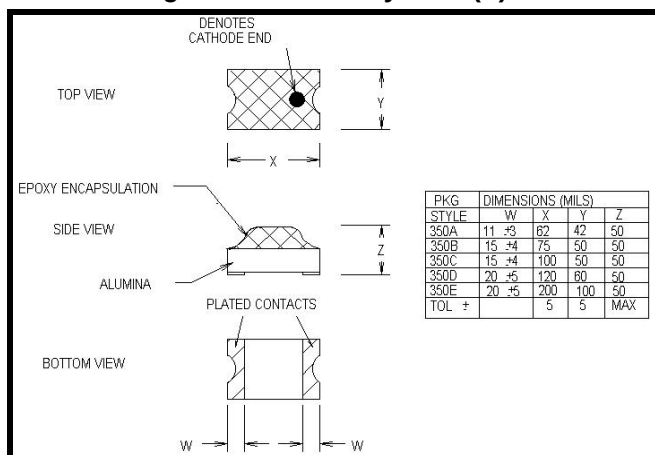
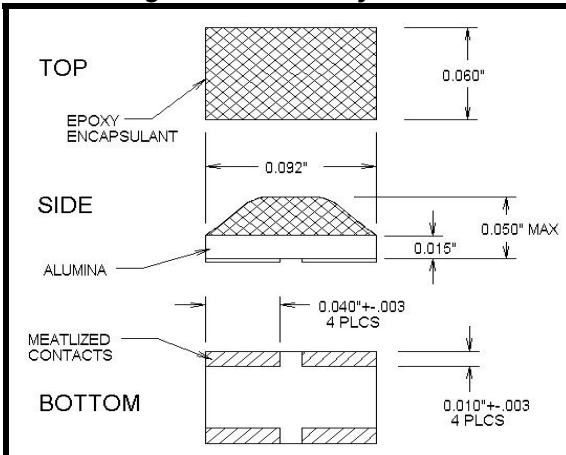


Figure 6 Outline Style 252A





MICROWAVE PRODUCTS DIVISION

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PRODUCT PREVIEW

www.Microsemi.com

NOTES