LXP1000 – LXP1011

SURFACE MOUNT
SOT23 PKG PIN Diodes

RoHS Compliant e3 RoHS

DESCRIPTION

The LXP series of SOT-23 PIN diodes offers the circuit designer a higher level of quality in a commercially priced package. Choose from LXP1000, LXP1004, and LXP1008 for switching applications, LXP1002, LXP1005, LXP1010 and LXP1011 for low distortion attenuation from VHF through 1.5 GHz. They are available in a host of configurations (see configuration table for internal wiring.) The LXP series of PIN diodes supersedes the LSP series. The LXP products are supplied with a RoHS compliant matte tin finish. The LSP series was supplied with a lead/tin finish.

Other configurations are available - consult factory for details. When ordering specify configuration (example: LXP1004-23-4 is a common cathode dual pin).

KEY FEATURES

- Low Cost
- High Performance
- Surface Mount
- Available on Tape
- Multiple Configurations to Choose From
- RoHS Compliant[1]

APPLICATIONS

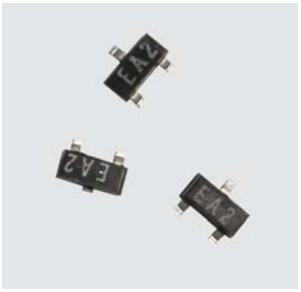
The LXP1000 series of SOT-23 PIN diodes are ideal for low cost RF switching and attenuator applications through 1.5 GHz. The can be tuned for narrow band control for frequencies through 5 GHz. They are available as Single Diode, Series “T”, and Common Pair configurations. The SOT-23 products can be supplied in bulk or on ‘tape & reel’ for automated pick and place assembly. Tape & Reeled parts are supplied in 8mm conductive polycarbonate tape.

APPLICATIONS/BENEFITS

- Low Current Switching
- Low Distortion Attenuation
- Ultra Low Distortion Switching
- High Quality / Economical Price.

ABSOLUTE MAXIMUM RATINGS AT 25º C
(UNLESS OTHERWISE SPECIFIED)

Rating	Symbol	Value	Unit
Maximum Leakage Current @80% of Minimum Rated V_B	I_R	50	nA
Storage Temperature	T_{STG}	-65 to +125	ºC
Operating Temperature	T_{OP}	-55 to +125	ºC
Power Dissipation	P_D	250	mW
Forward Current (1uS Pusle)	I_F	1	A



IMPORTANT: For the most current data, consult our website: ***www.MICROSEMI.com***

These devices are ESD sensitive and must be handled using ESD precautions.

[1] The LXP1000 Series of products are supplied with a RoHS complaint Matte Tin finish.

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ELECTRICAL PARAMETERS @ 25°C (Unless Otherwise Specified)

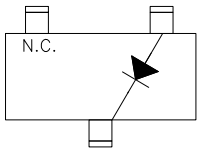
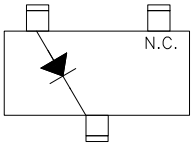
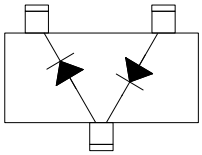
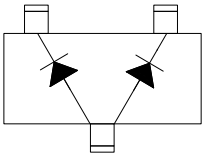
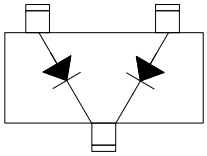
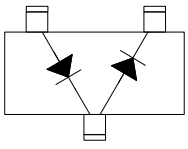
Model Number	V_b(V) I_R=10µA (Min)	C_T(pF)[1] @V_R (Typ)	V_R (V)	R_s(Ω)[2] @I_F (Max)	I_F(mA)	T_L(nS)[3] . (Typ)	Application
LXP1000	35	0.28	5	2.5	5	40	Switch
LXP1002	100	0.32	50	4.0	100	1500	Attenuator
LXP1004	35	0.75	20	0.6	10	70	Switch
LXP1005	100	0.40	50	6.5	5	2000	Attenuator
LXP1008	50	0.30	20	1.5	10	200	Switch
LXP1010	100	0.35	50	3.0	10	1000	Attenuator
LXP1011	200	0.35	50	8.0	20	2000	Attenuator

Notes
1. Capacitance (C_T) is measured at f = 1 MHz
2. Series Resistance (R_S) is measured at f = 100 MHz
3. Carrier Lifetime (T_L) is measured at I_F = 10 mA, I_R = 6 mA

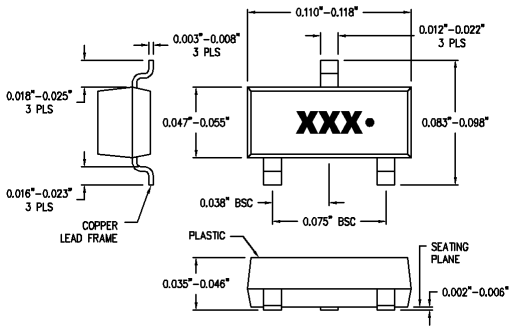
TYPICAL CONFIGURATIONS

Model Number	23-0	23 – 1	23 - 2	23 - 3	23 - 4	23 - 5
LXP1000	●	●	●	●	●	
LXP1002	●	●	●	●	●	
LXP1004	●				●	
LXP1005	●					
LXP1008	●		●		●	
LXP1010	●					●
LXP1011	●					

PINOUT

2 3 - 0	2 3 - 1	2 3 - 2
		
2 3 - 3	**2 3 - 4**	**2 3 - 5**
		

SOT23 (23) STYLE PACKAGE



CROSS REFERENCE				
	MSC P/N	INDUSTRY EQUIVALENT		
	LXP1000 – 23-0	HSMP3890		
	LXP1000 – 23-1	HSMP3891		
	LXP1000 – 23-2	HSMP3892		
	LXP1000 – 23-3	HSMP3893		
	LXP1000 – 23-4	HSMP3894		
	LXP1002 – 23-0	HSMP3810	MA4P274	
	LXP1002 – 23-1	HSMP3811		
	LXP1002 – 23-2	HSMP3812	MA4P274ST	
	LXP1002 – 23-4	HSMP3814	MA4P274CK	
	LXP1004 – 23-0	HSMP3820		
	LXP1004 – 23-1	HSMP3821		
	LXP1004 – 23-2	HSMP3822		
	LXP1004 – 23-3	HSMP3823		
	LXP1004 – 23-4	HSMP3824		
	LXP1005 – 23-0	HSMP3880		
	LXP1008 – 23-2		MA4P789ST	SMP1310-12
	LXP1008 – 23-4		MA4P789CK	SMP1310-13
	LXP1010 – 23-0		MA4P274	
	LXP1011 – 23-0		MA4CP103A	SMP1304-01

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