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LXP1000 - LXP1011

SURFACE MOUNT SOT23 PKG PIN Diodes

RoHS Compliant





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 Compliant¹

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 25° 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	°C		
Operating Temperature	T_OP	-55 to +125	°C		
Power Dissipation	P _D	250	mW		
Forward Current (1uS Pusle)	I _F	1	Α		



IMPORTANT: For the most current data, consult our website: <u>www.MICROSEMI.com</u>

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

¹ The LXP1000 Series of products are supplied with a RoHS complaint Gold finish.

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ELECTRICAL PARAMETERS @ 25°C (Unless Otherwise Specified)							
Model Number	V _b (V) I _R =10μΑ (Min)	C _T (pF) ¹ @V _R (Typ)	V _R (V)	$R_s(\Omega)^2$ $@I_F$ (Max)	I _F (mA)	T _∟ (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 Series Resistance (R_S) is measured at f = 100 MHz 2.
- 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			
23-0	23-1	23-2	
N.C.	N.C.		
23-3	23-4	23-5	

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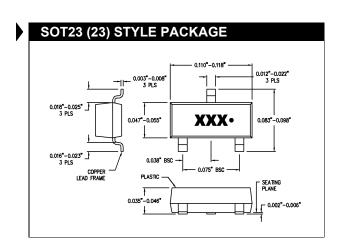
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	CROSS REFE	RENCE		
MSC P/N	INDUSTRY EQUIVALENT			
LXP1000 - 23-0	HSMP3890			
LXP1000 - 23-1	HSMP3891			
LXP1000 - 23-2	HSMP3892			
LXP1000 - 23-3	HSMP3893			
LXP1000 - 23-4	HSMP3894			
LXP1002 - 23-0	HSMP3810	MA4P274		
LXP1002 - 23-1	HSMP3811			
LXP1002 - 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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