

# LSJ500



## Linear Systems replaces discontinued Siliconix J500

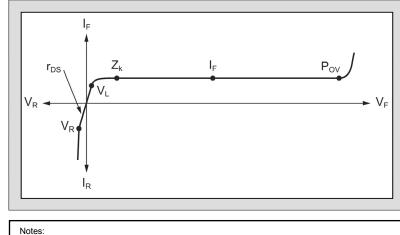
The Linear Systems LSJ500 is a ± 20% range current regulator

The LSJ500 is a ±20% range current regulator designed for	FE	FEATURES									
demanding applications in test equipment and instrumentation	RE	REPLACEMENT SOURCE FOR SILICONIX J500									
The LSJ500 utilizes JFET techniques to produce a single two leaded device which is extremely simple to operate.	WI	DE CUF	0.24mA ± 20%								
	BI/	ASING N	$V_{GS} = 0V$								
Two-Lead Plastic Package     Guaranteed ±20% Tolerance	AE	ABSOLUTE MAXIMUM RATINGS <sup>1</sup>									
<ul> <li>Operation up to 45V</li> </ul>	@	@ 25 °C (unless otherwise stated)									
Excellent Temperature Stability	Ma	Maximum Temperatures									
<ul> <li>Simple Series Circuitry, No Separate Voltage Source</li> <li>Tight Guaranteed Circuit Performance</li> </ul>			orage Te	-55 to 150°C							
Excellent Performance in Low-Voltage/Battery Circu	Ju	nction O	-55 to 135°C								
<ul><li>and High-Voltage Spike Protection</li><li>High Circuit Stability vs. Temperature</li></ul>			Maximum Power Dissipation								
			ntinuou	350mW							
LSJ500 Applications:	Ma	Maximum Currents									
<ul> <li>Constant-Current Supply</li> <li>Current-Limiting</li> <li>Timing Circuits</li> </ul>			rward C	20mA							
			verse C	50mA							
			Maximum Voltages								
			ak Oper	P <sub>OV</sub> = 45V							
SPECIFIC ELECTRICAL CHARACTERISITCS @ 25°C (unless otherwise stated)											
SYMBOL CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS						
Pov Peak Operating Voltage <sup>2</sup>	45			V	$I_F = 1.1I_{F(max)}$						
V <sub>R</sub> Reverse Voltage		0.8		V	I <sub>R</sub> = 1mA						
C <sub>F</sub> Forward Capacitance		1.5		рF	V <sub>F</sub> = 25V, <i>f</i> = 1MHz						

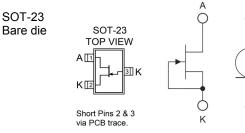
#### SPECIFIC ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated)

PART	Forward Current <sup>3</sup> I <sub>F</sub>			Dynamic Ir Z		Knee Impedance Z <sub>k</sub>	Limiting Voltage⁵ V∟	
	V <sub>F</sub> = 25V			V <sub>F</sub> =	25V	V <sub>F</sub> = 6V	$I_F = 0.8I_{F(min)}$	
	MIN	NOM	MAX	MIN	TYP	TYP	ТҮР	MAX
LSJ500	0.192	0.24	0.288	4.00	15	2.50	1.2	0.4

#### V-I CHARACTERISTICS CURRENT REGULATING DIODE



### LSJ500 Availability:



Please contact Micross for full package and die dimensions



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1. Absolute maximum ratings are limiting values above which serviceability may be impaired. 2. Pulsed, t = 2ms. Maximum V<sub>F</sub> where IF <  $1.1_{\rm IF}$ (max).

- $\begin{array}{l} \text{2-Puised, } t=2\text{ms. Maximum V}_{\text{F}} \text{ where } t=1 \quad \text{3-Puised, } t=2\text{ms. Continuous currents may vary.}\\ \text{4. Puised, } t=2\text{ms. Continuous impedances may vary.}\\ \text{5. Min } V_{\text{F}} \text{ required to ensure } I_{\text{F}}=0.8_{\text{IF}}(\text{min}). \end{array}$

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