

LSJ504 **Current Regulator Diode**



TO-92

BOTTOM VIEW

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Please contact Micross for full package and die dimensions

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Linear Systems replaces discontinued Siliconix J504

The Linear Systems LSJ504 is a ± 20% range current regulator

 The LSJ504 is a ±20% range current regulator designed for demanding applications in test equipment and instrumentation. The LSJ504 utilizes JFET techniques to produce a single two-leaded device which is extremely simple to operate. Two-Lead Plastic Package Guaranteed ±20% Tolerance Operation up to 50V Excellent Temperature Stability Simple Series Circuitry, No Separate Voltage Source Tight Guaranteed Circuit Performance Excellent Performance in Low-Voltage/Battery Circuits and High-Voltage Spike Protection High Circuit Stability vs. Temperature 	FEATURES					
	REPLACEMENT SOURCE FOR SILICONIX J504					
	WIDE CURRENT RANGE	0.75mA ± 20%				
	BIASING NOT REQUIRED	V _{GS} = 0V				
	ABSOLUTE MAXIMUM RATINGS ¹					
	@ 25 °C (unless otherwise stated)					
	Maximum Temperatures					
	Storage Temperature	-55 to 150°C				
	Junction Operating Temperature	-55 to 135°C				
	Maximum Power Dissipation					
	Continuous Power Dissipation @125°C	360mW				
LSJ504 Applications:	Maximum Currents					
Constant-Current Supply	Forward Current	20mA				
	Reverse Current	50mA				
Current-Limiting Timing Circuits	Maximum Voltages					
	Peak Operating Voltage	P _{OV} = 50V				

ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS
Pov	Peak Operating Voltage ²	50			V	$I_F = 1.1I_{F(max)}$
V _R	Reverse Voltage		0.8		V	I _R = 1mA
CF	Forward Capacitance		2.2		рF	V _F = 25V, <i>f</i> = 1MHz

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

PART	Fo	Forward Current ³ I _F		Dynamic Impedance ⁴ Z _d		Knee Impedance Z _k	Limiting Voltage ⁵ V∟	
	V _F = 25V			V _F = 25V		V _F = 6V	$I_F = 0.8I_{F(min)}$	
	MIN	NOM	MAX	MIN	TYP	TYP	TYP	MAX
J504	0.600	0.75	0.900	0.80	3.5	0.55	1.9	0.8

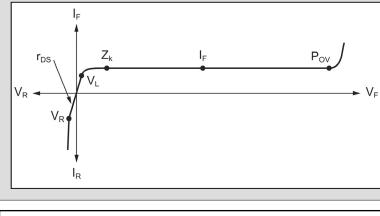
Available

TO-92

Bare Die.

Packages:

V-I CHARACTERISTICS CURRENT REGULATING DIODE



Notes:

- 1. Absolute maximum ratings are limiting values above which serviceability may be impaired. 2. Pulsed, t = 2ms. Maximum V_F where IF < $1.1_{\rm IF}$ (max).
- 3. Pulsed, t = 2ms. Continuous currents may vary.
- 4. Pulsed, t = 2ms. Continuous impedances may vary. 5. Min V_F required to ensure $I_F = 0.8_{IF}(min)$.

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