

J500, J501, J502, J503, J504, J505

Current Regulator Diode

- Current Regulation
- Current Limiting

Absolute maximum ratings at $T_A = 25^\circ\text{C}$

Peak Operating Voltage	50 V
Forward Current	20 mA
Reverse Current	50 mA
Operating & Storage Temperature Range	- 55°C to 135°C

At 25°C free air temperature Electrical Characteristics		J500			J501			J502			Process NJ16	
		Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Unit	Test Conditions
Forward Current	I_{F1}	0.192	0.240	0.288	0.264	0.33	0.396	0.344	0.43	0.516	mA	$V_F = 25V$
		Typ			Typ			Typ				
Limiting Voltage	V_L		0.8	1.2		0.9	1.3		1.1	1.5	V	$I_F = 0.9 I_{F(MIN)}$
Peak Operating Voltage	V_{OP}	50			50			50			V	$I_F = 1.1 I_{F(MAX)}$
Dynamic Impedance	Z_{fi}	4	8		2.2	6		1.5	4.4		MΩ	$V_F = 25V, f = 1 \text{ kHz}$
Anode– Cathode Capacitance	C_F		2			2			2		pF	$V_F = 25V, f = 1 \text{ kHz}$

At 25°C free air temperature Electrical Characteristics		J503			J504			J505			Process NJ16	
		Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Unit	Test Conditions
Forward Current	I_{F1}	0.448	0.56	0.672	0.6	0.75	0.9	0.8	1	1.2	mA	$V_F = 25V$
		Typ			Typ			Typ				
Limiting Voltage	V_L		1.2	1.7		1.4	1.9		1.5	2.1	V	$I_F = 0.9 I_{F(MIN)}$
Peak Operating Voltage	V_{OP}	50			50			50			V	$I_F = 1.1 I_{F(MAX)}$
Dynamic Impedance	Z_{fi}	1.2	3.4		0.8	2.5		0.5	1.9		MΩ	$V_F = 25V, f = 1 \text{ kHz}$
Anode– Cathode Capacitance	C_F		2			2			2		pF	$V_F = 25V, f = 1 \text{ kHz}$

TO-92 Two-Lead Package

Dimensions in Inches (mm)

Pin Configuration

Modified: 1 Anode, 2 Cathode



1000 N. Shiloh Road, Garland, TX 75042
(972) 487-1287 FAX (972) 276-3375

www.interfet.com