

J553, J554, J555, J556, J557

Current Regulator Diode

- Current Regulation
- Current Limiting
- Biasing

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

Peak Operating Voltage	50 V
Continuous Reverse Gate Current	50 mA
Continuous Device Power Dissipation	360 mW
Power Derating	2.88 mW/°C

At 25°C free air temperature Electrical Characteristics

		J553			J554			J555			Process NJ16	
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Unit	Test Conditions
Regulator Current	I_F	0.18	0.5	0.75	0.6	1	1.6	1.4	2	2.6	mA	$V_F = 25\text{V}$
Limiting Voltage	V_L		0.75	1.3		0.55	1.75		0.75	2.15	V	$I_F = 0.9 I_{F(\text{MIN})}$
Peak Operating Voltage	V_{OP}	50			50			50			V	$I_F = 1.1 I_{F(\text{MAX})}$
Dynamic Impedance	'ZD		13			5			1.8		MΩ	$V_F = 25\text{V}$, $f = 1\text{ kHz}$
Knee Impedance	'ZK		1			0.4			0.17		MΩ	$V_F = 25\text{V}$, $f = 1\text{ kHz}$

At 25°C free air temperature Electrical Characteristics

		J556			J556			Process NJ16	
		Min	Typ	Max	Min	Typ	Max	Unit	Test Conditions
Regulator Current	I_F	2.4	3	3.8	3.6	4.5	5.3	mA	$V_F = 25\text{V}$
Limiting Voltage	V_L		0.75	2.6		1.5	3	V	$I_F = 0.9 I_{F(\text{MIN})}$
Peak Operating Voltage	V_{OP}	50			50			V	$I_F = 1.1 I_{F(\text{MAX})}$
Dynamic Impedance	'ZD		1.0			0.6		MΩ	$V_F = 25\text{V}$, $f = 1\text{ kHz}$
Knee Impedance	'ZK		0.09			0.06		MΩ	$V_F = 25\text{V}$, $f = 1\text{ kHz}$

TO-92 Two-Lead Package

Dimensions in Inches (mm)

Pin Configuration

1 Anode, 2 Cathode



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