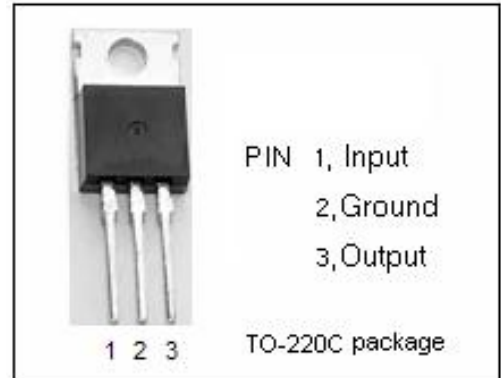


# isc Three Terminal Positive Voltage Regulator

# LM7824

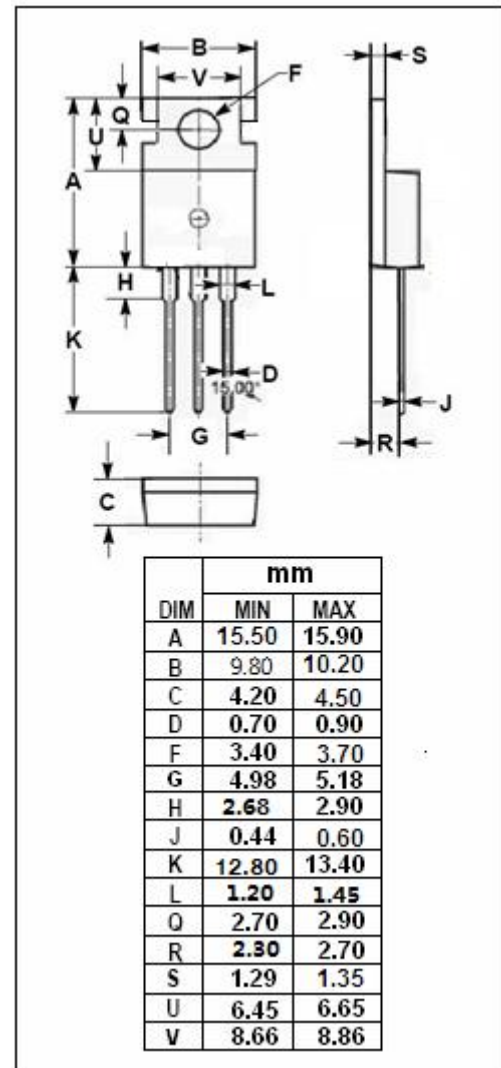
## FEATURES

- Output current in excess of 1.5A
- Output voltage of 24V
- Internal thermal overload protection
- Short circuit protection
- Output transition Safe-Area compensation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



## ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	RATING	UNIT
V <sub>i</sub>	DC input voltage	40	V
I <sub>o</sub>	Output current	internally limited	
P <sub>tot</sub>	Power dissipation	internally limited	
T <sub>OP</sub>	Operating junction temperature	0~150	°C
T <sub>stg</sub>	Storage temperature	-55~150	°C



## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	3	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	50	°C/W

## isc Three Terminal Positive Voltage Regulator

## LM7824

## • ELECTRICAL CHARACTERISTICS

T<sub>J</sub>=25°C (V<sub>i</sub>= 33V, I<sub>o</sub>=0.5A, C<sub>i</sub>= 0.33 μ F, C<sub>o</sub>= 0.1 μ F unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>o</sub>	Output Voltage	V <sub>in</sub> =33V; I <sub>o</sub> =500mA	23	25	V
ΔV <sub>v</sub>	Line Regulation	27V ≤ V <sub>in</sub> ≤ 38V; I <sub>o</sub> =500mA		240	mV
ΔV <sub>i</sub>	Load Regulation	5.0mA ≤ I <sub>o</sub> ≤ 1.5A; V <sub>in</sub> =33V		240	mV
I <sub>b</sub>	Quiescent Current	V <sub>in</sub> =33V; I <sub>o</sub> =1.0A		8.0	mA
Δ <sub>b1</sub>	Quiescent Current Change	5.0mA ≤ I <sub>o</sub> ≤ 1.0A; V <sub>in</sub> =33V		0.5	mA
Δ <sub>b2</sub>	Quiescent Current Change	28V ≤ V <sub>in</sub> ≤ 38V; I <sub>o</sub> =500mA		1.0	mA

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