

isc Three Terminal Positive Voltage Regulator
L7805K
FEATURES

- Output current in excess of 1.5A
- Output voltage of 5V
- Internal thermal overload protection
- Output transition Safe-Area compensation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	RATING	UNIT
V _i	DC input voltage	35	V
I _o	Output current	internally limited	
P _{tot}	Power dissipation	internally limited	
T _{OP}	Operating junction temperature	0~150	°C
T _{stg}	Storage temperature	-55~150	°C

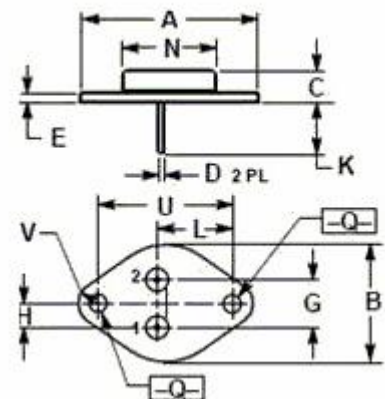
THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	4	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	35	°C/W



PIN 1, Input
2, Output
3, Ground

TO-3 package



DIM	mm	
	MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

isc Three Terminal Positive Voltage Regulator**L7805K****• ELECTRICAL CHARACTERISTICS**T_j=25°C (V_i= 10V, I_o=0.5A, C_i= 0.33 μ F, C_o= 0.1 μ F unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _o	Output Voltage	V _{in} =10V; I _o =500mA	4.8	5.2	V
ΔV _v	Line Regulation	7V ≤ V _{in} ≤ 25V; I _o =1A		100	mV
ΔV _i	Load Regulation	5.0mA ≤ I _o ≤ 1A; V _{in} =10V		100	mV
I _d	Quiescent Current	V _{in} =10V; I _o =0.5A		8.0	mA
Δ _{d1}	Quiescent Current Change	5.0mA ≤ I _o ≤ 1.0A; V _{in} =10V		0.5	mA
Δ _{d2}	Quiescent Current Change	7V ≤ V _{in} ≤ 25V; I _o =500mA		1.3	mA

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