isc Three Terminal Positive Voltage Regulator LM7815

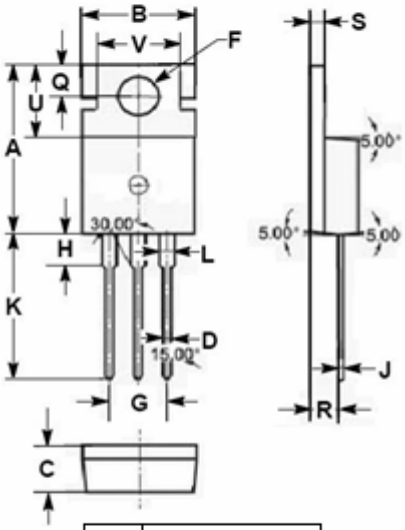
1 2 3

PIN 1, Input
2, Ground
3, Output

TO-220C package

FEATURES

- Output current in excess of 1.5A
- Output voltage of 15V
- Internal thermal overload protection
- Output transition SOA protection



DIM	mm MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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	0~125	℃
T_{stg}	Storage temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	5	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	65	℃/W

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• ELECTRICAL CHARACTERISTICS

T_j=25℃ (V_i= 23V, I_O=0.5A, C_i= 0.33μF, C_O= 0.1μF unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V_O	Output Voltage	V_{in}=23V; I_O=0.5A	14.4	15.6	V
V_O	Output Voltage	17.5 V≤V_{in}≤30V;5mA ≤I_O≤1A	14.25	15.75	V
$\triangle V_O$	Line Regulation	17.5V≤V_{in}≤30V; I_O=0.5A		300	mV
$\triangle V_O$	Load Regulation	5.0mA≤I_O≤1.5A;V_{in}=23V		300	mV
I_q	Quiescent Current	V_{in}=23V; I_O=0.5A		8.0	mA
$\triangle_{q1}$	Quiescent Current Change	5.0mA≤I_O≤1.0A;V_{in}=23V		0.5	mA
$\triangle_{q2}$	Quiescent Current Change	18V≤V_{in}≤30.5V; I_O=0.5A		0.8	mA