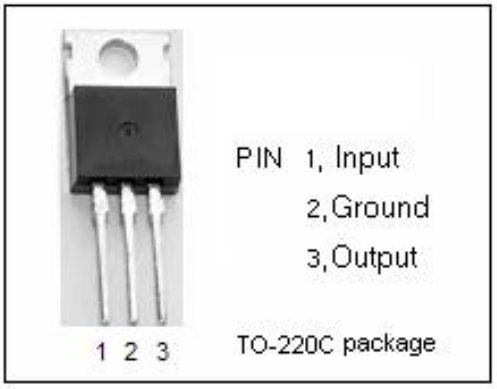
isc Three Terminal Positive Voltage Regulator LM7815

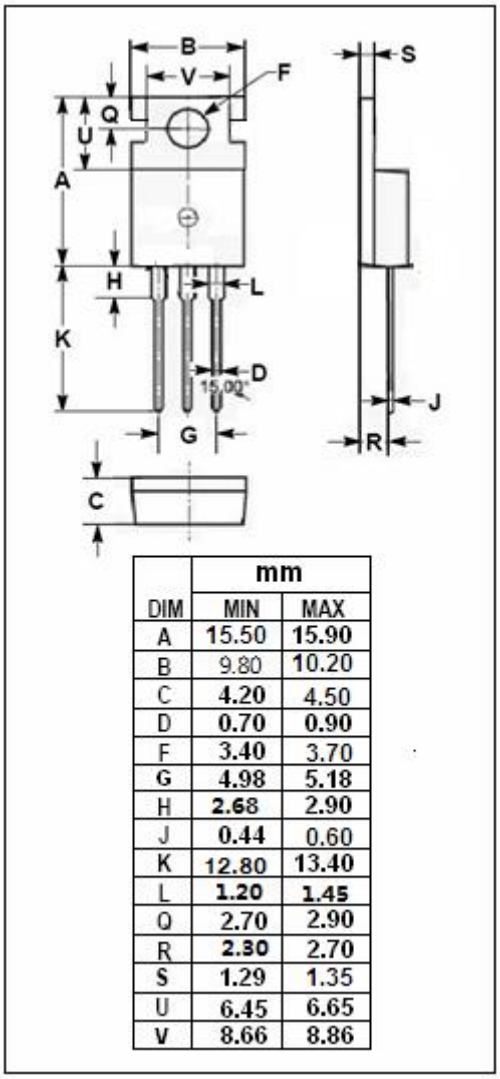


FEATURES

- Output current in excess of 1.5A
- Output voltage of 15V
- 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℃)

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	℃
T_{stg}	Storage temperature	-55~150	℃



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	3	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	50	℃/W

isc Three Terminal Positive Voltage Regulator LM7815

• ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V_O	Output Voltage	V_{in}=23V; I_O=1.5A	14.4	15.6	V
$\triangle V_V$	Line Regulation	17.5V≤V_{in}≤30V; I_O=0.5A		150	mV
$\triangle V_i$	Load Regulation	5.0mA≤I_O≤1.5A;V_{in}=23V		150	mV
I_q	Quiescent Current	V_{in}=23V; I_O=1A		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	17.5V≤V_{in}≤30V; I_O=500mA		1.0	mA