

isc Three Terminal Negative Voltage Regulator

7915

FEATURES

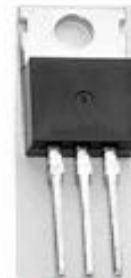
- Output current in excess of 1A
- Output voltage of -15V
- Internal thermal overload protection
- Output transition Safe-Area compensation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	RATING	UNIT
V_i	DC input voltage	-30	V
T_{OP}	Operating junction temperature	0~150	$^{\circ}\text{C}$
T_{stg}	Storage temperature	-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

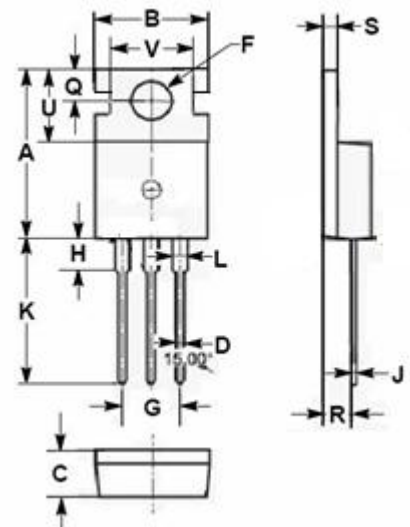
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3	$^{\circ}\text{C}/\text{W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	50	$^{\circ}\text{C}/\text{W}$



PIN 1, Ground
2, Input
3, Output

1 2 3

TO-220C package



DIM	mm	
	MIN	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

isc Three Terminal Negative Voltage Regulator**7915****• ELECTRICAL CHARACTERISTICS** $T_j = 25^\circ\text{C}$ ($V_i = -23\text{V}$, $I_o = 0.5\text{A}$, $C_i = 2.2\ \mu\text{F}$, $C_o = 1\ \mu\text{F}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V_o	Output Voltage	$V_{in} = -23\text{V}$; $I_o = 1\text{A}$	-14.4	-15	-15.6	V
V_o	Output Voltage	$V_{in} = -17.5$ to -30V ; $I_o = 5\text{mA}$ to 1A ;	-14.4	-15	-15.6	V
ΔV_v	Line Regulation	$-17.5\text{V} \leq V_{in} \leq -30\text{V}$; $I_o = 0.5\text{A}$			300	mV
ΔV_i	Load Regulation	$5.0\text{mA} \leq I_o \leq 1\text{A}$; $V_{in} = -23\text{V}$			300	mV
I_b	Quiescent Current	$V_{in} = -23\text{V}$; $I_o = 1\text{A}$			4	mA
Δ_{b1}	Quiescent Current Change	$5.0\text{mA} \leq I_o \leq 1.0\text{A}$; $V_{in} = -23\text{V}$			0.5	mA
Δ_{b2}	Quiescent Current Change	$-18.5\text{V} \leq V_{in} \leq -30\text{V}$; $I_o = 0.5\text{A}$			1	mA

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