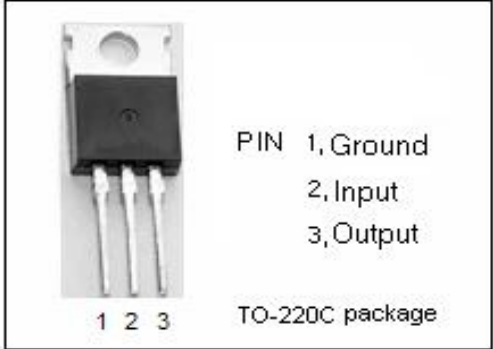


isc Three Terminal Negative Voltage Regulator

7909

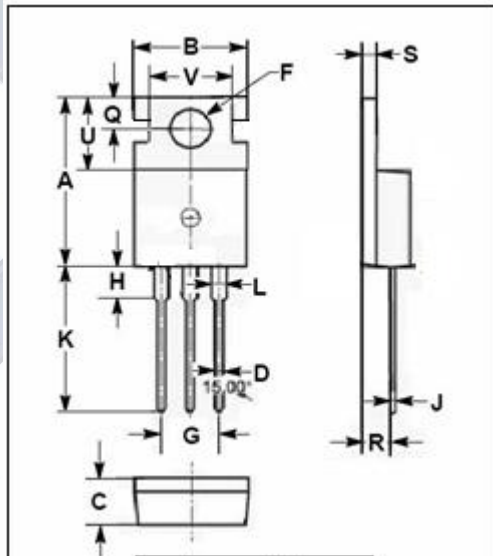
FEATURES

- Output current in excess of 1.0A
- Output voltage of -9V
- 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	0~125	°C
T _{stg}	Storage temperature	-55~150	°C



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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	5	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	65	°C/W

isc Three Terminal Negative Voltage Regulator**7909****• ELECTRICAL CHARACTERISTICS** $T_j=25^\circ\text{C}$ ($V_i=-15\text{V}$, $I_o=0.5\text{A}$, $C_i=2.2\ \mu\text{F}$, $C_o=1\ \mu\text{F}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V_o	Output Voltage	$V_{in}=-9\text{V}$; $I_o=0.5\text{A}$	-8.7		-9.3	V
V_o	Output Voltage	$V_{in}=-1.5$ to -23V ; $I_o=5\text{mA}$ to 1A ; $P_o \leq 15\text{W}$	-8.6	-12	-9.4	V
ΔV_v	Line Regulation	$-11.5\text{V} \leq V_{in} \leq -26\text{V}$; $I_o=0.5\text{A}$ $-12\text{V} \leq V_{in} \leq -18\text{V}$; $I_o=0.5\text{A}$			180 90	mV
ΔV_i	Load Regulation	$5.0\text{mA} \leq I_o \leq 1.5\text{A}$; $250\text{mA} \leq I_o \leq 750\text{mA}$;			180 90	mV
I_d	Quiescent Current	$V_{in}=-15\text{V}$; $I_o=0.5\text{A}$			6	mA
Δ_{d1}	Quiescent Current Change	$5.0\text{mA} \leq I_o \leq 1.0\text{A}$; $V_{in}=-15\text{V}$			0.5	mA
Δ_{d2}	Quiescent Current Change	$-11.5\text{V} \leq V_{in} \leq -26\text{V}$; $I_o=0.5\text{A}$			1	mA