

isc Three Terminal Negative Voltage Regulator

7912

FEATURES

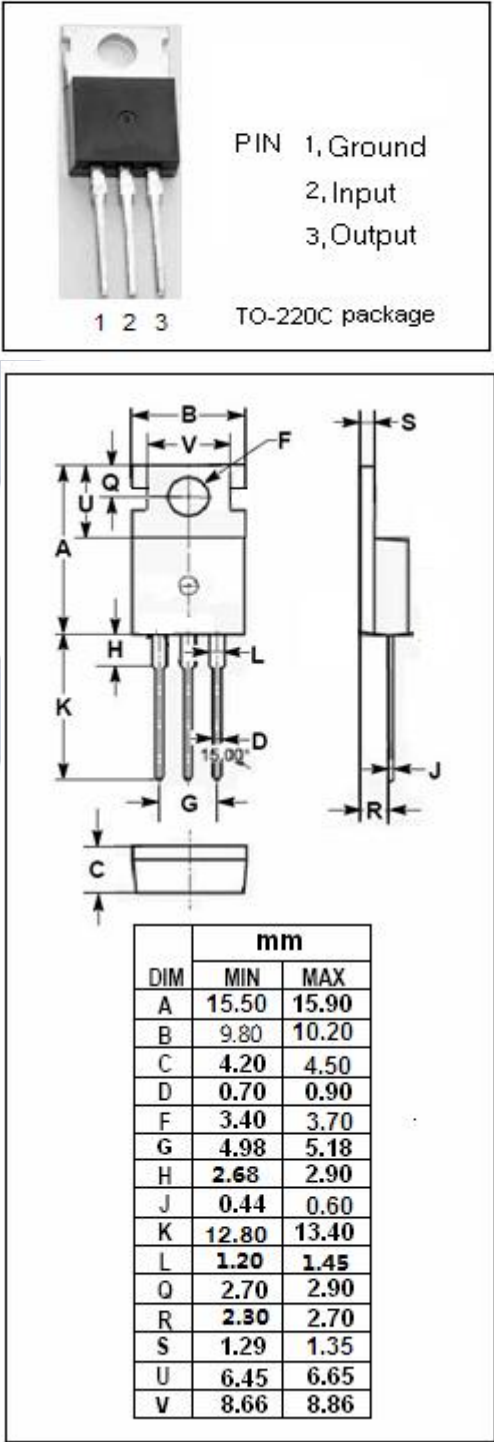
- Output current in excess of 1.5A
- Output voltage of -12V
- Internal thermal overload protection
- Output transition Safe-Area compensation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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	3	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	50	°C/W



isc Three Terminal Negative Voltage Regulator**7912****• ELECTRICAL CHARACTERISTICS** $T_j = 25^\circ\text{C}$ ($V_i = -19\text{V}$, $I_o = 0.5\text{A}$, $C_i = 2.2\ \mu\text{F}$, $C_o = 1\ \mu\text{F}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V_o	Output Voltage	$V_{in} = -19\text{V}$; $I_o = 0.5\text{A}$	-11.5	-12	-12.5	V
V_o	Output Voltage	$V_{in} = -15.5\text{V to } -27\text{V}$; $I_o = 5\text{mA to } 1\text{A}$; $P_o \leq 15\text{W}$	-11.4	-12	-12.6	V
ΔV_v	Line Regulation	$-14.5\text{V} \leq V_{in} \leq -30\text{V}$; $I_o = 0.5\text{A}$ $-16\text{V} \leq V_{in} \leq -22\text{V}$; $I_o = 0.5\text{A}$			240 120	mV
ΔV_i	Load Regulation	$5.0\text{mA} \leq I_o \leq 1.5\text{A}$; $250\text{mA} \leq I_o \leq 750\text{mA}$;			240 120	mV
I_d	Quiescent Current	$V_{in} = -19\text{V}$; $I_o = 0.5\text{A}$			3	mA
Δ_{d1}	Quiescent Current Change	$5.0\text{mA} \leq I_o \leq 1.0\text{A}$; $V_{in} = -19\text{V}$			0.5	mA
Δ_{d2}	Quiescent Current Change	$-15\text{V} \leq V_{in} \leq -30\text{V}$; $I_o = 0.5\text{A}$			1	mA