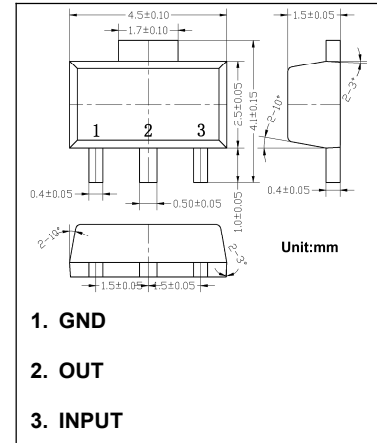


AMS1117-1.8

Features

- Low Dropout Voltage: 1.15V at 1A Output Current
- Trimmed Current Limit
- On-Chip Thermal Shutdown
- Operation junction Temperature: 0°C to 125°C

Marking: AMS11171.8LJ13



Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified)

Symbol	Parameter	Value	Unit
V_i	Input Voltage	18	V
T_{OPR}	Operating Junction Temperature Range	-20 to +125	°C
T_{STG}	Storage Temperature Range	-65 to +150	°C

Electrical Characteristics at Specified Virtual Junction Temperature

($V_i \leq 10V$, $T_J = 25^\circ C$, unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V_o	Output Voltage	$I_o = 10mA$, $V_i = 3.8V$ $3.2V \leq V_i \leq 10V$, $10mA \leq I_o \leq 1A$	1.764	1.8	1.836	V
ΔV_o	Load Regulation	$V_i - V_o = 2V$, $10mA \leq I_o \leq 1A$			10	mV
ΔV_o	Line Regulation	$I_o = 10mA$, $1.5V \leq V_i - V_o \leq 10V$			6	mV
V_D	Dropout Voltage	$\Delta V_{REF} = 1\%$, $I_o = 1A$		1.15	1.5	V
I_{limit}	Current Limit	$V_i - V_o = 2V$	1.25	1.35		A
	Adjust Pin Current			60	120	μA
	Adjust Pin Current Change	$1.4V \leq V_i - V_o \leq 10V$, $10mA \leq I_o \leq 1A$		0.2	5	μA
	Quiescent Current	$V_i = V_o + 1.25V$		5	10	mA
		$5mA \leq I_o \leq 1A$, 0-125°C			0.5	mA
R_R	Ripple Rejection	$f = 120Hz$, $C_{out} = 22\mu F$ Tantalum, $V_i - V_o = 3V$, $I_o = 1A$	60	75		dB
	Temperature Stability			0.5		%
	Long-Term Stability			0.3		%
	RMS Output Noise (% of V_o)	$T_a = 25^\circ C$, $10Hz \leq f \leq 10KHz$		0.003		%