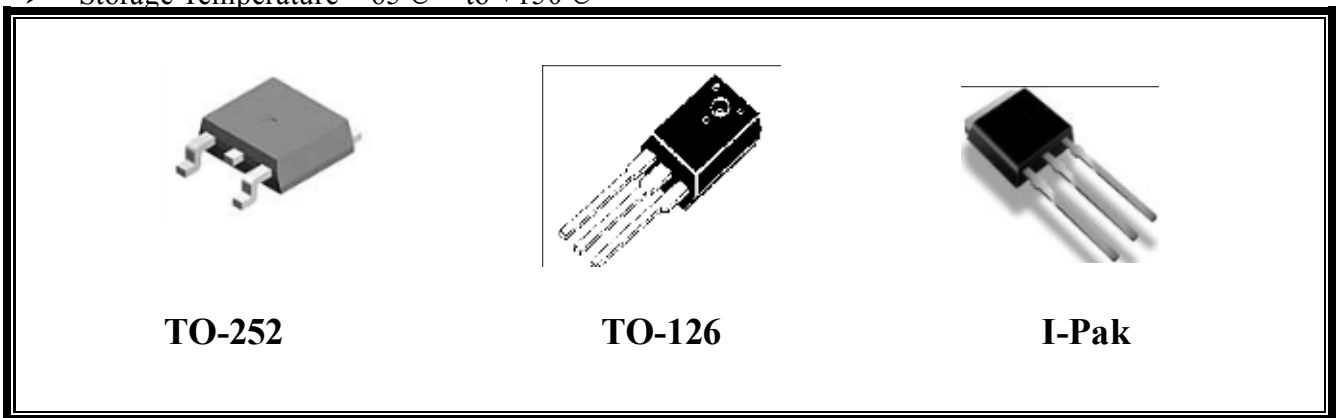
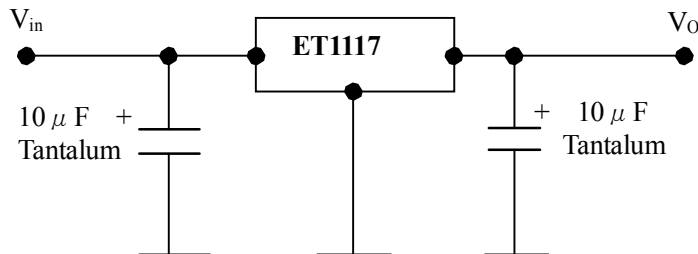
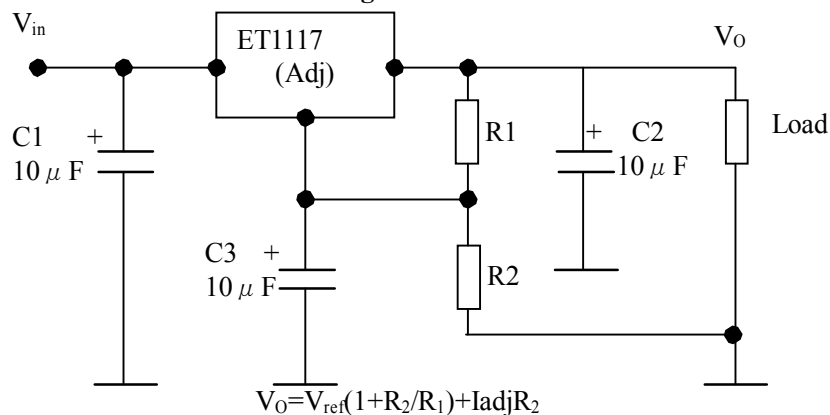


**Features:**

- Dropout voltage 1.2V
- Line regulation typically at 0.2% max
- Load regulation typically at 0.4% max
- Current limiting and Thermal protection
- Adjustable Output Voltage or Fixed 1.25V,1.5V, 1.8V,2.5V,2.85V,3.3V,5V
- Standard 3-pin Power Packages
- Maximum Input Voltage -15V
- Operating Junction Temperature Range - 0 to + 150°C

**ABSOLUTE MAXIMUM RATINGS**

- Power Dissipation 12W
- Input Voltage 12V-(V<sub>O</sub>=1.5V,1.8V,2.5V,3.3V)  
15V-(V<sub>O</sub>=5.0V,adjustable)
- Operating Junction Temperature Range 0 to +150°C
- Storage Temperature - 65°C to +150°C


**APPLICATION INFORMATION**

**FIGURE 1. Fixed-Voltage Model -Basic Connections.**

**FIGURE 1. Adjustable-Voltage Model -Basic Connections**

**ELECTRICAL CHARACTERISTICS**

 ( $T_j = +25^\circ\text{C}$ , unless otherwise noted)

PARAMETER	CONDITIONS	MIN	TYP	MAX	
UNITS					
ET1117(Adjustable)	$I_O = 10\text{mA}, V_{in} - V_O = 2\text{V}$	1.238	1.250	1.262	V
	$I_O = 10\text{mA to } 1\text{A}, V_{in} - V_O = 1.5 \text{ to } 13.75\text{V}$	1.232	1.250	1.268	V
ET1117-1.5	$I_O = 10\text{mA}, V_{in} = 3.5\text{V}$	1.485	1.500	1.515	V
	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 3.0\text{V to } 12\text{V}$	1.477	1.500	1.522	V
ET1117-1.8	$I_O = 10\text{mA}, V_{in} = 3.8\text{V}$	1.782	1.800	1.818	V
	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 3.3\text{V to } 12\text{V}$	1.773	1.800	1.827	V
ET1117-2.5	$I_O = 10\text{mA}, V_{in} = 4.5\text{V}$	2.475	2.500	2.525	V
	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 4.0\text{V to } 12\text{V}$	2.462	2.500	2.538	V
ET1117-2.85	$I_O = 10\text{mA}, V_{in} = 4.85\text{V}$	2.820	2.850	2.880	V
	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 4.4\text{V to } 12\text{V}$	2.807	2.850	2.893	V
ET1117-3.3	$I_O = 10\text{mA}, V_{in} = 5.3\text{V}$	3.270	3.300	3.330	V
	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 4.8\text{V to } 12\text{V}$	3.250	3.300	3.350	V
ET1117-5.0	$I_O = 10\text{mA}, V_{in} = 7\text{V}$	4.950	5.000	5.050	V
	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 6.5\text{V to } 15\text{V}$	4.925	5.000	5.075	V
OUTPUT VOLTAGE	$T_j = 0^\circ\text{C} \text{ to } +125^\circ\text{C}$				
ET1117(Adjustable)	$I_O = 10\text{mA to } 1\text{A}, V_{in} - V_O = 1.5 \text{ to } 13.75\text{V}$	1.225	1.250	1.280	V
ET1117-1.5	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 3.0\text{V to } 12\text{V}$	1.470	1.500	1.530	V
ET1117-1.8	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 3.3\text{V to } 12\text{V}$	1.764	1.800	1.836	V
ET1117-2.5	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 4.0\text{V to } 12\text{V}$	2.450	2.500	2.550	V
ET1117-2.85	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 4.4\text{V to } 12\text{V}$	2.790	2.850	2.910	V
ET1117-3.3	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 4.8\text{V to } 12\text{V}$	3.240	3.300	3.360	V
ET1117-5.0	$I_O = 0 \text{ to } 1\text{A}, V_{in} = 6.5\text{V to } 15\text{V}$	4.900	5.000	5.100	V
LINE REGULATION					
ET1117(Adjustable)	$I_O = 10\text{mA}, V_{in} - V_O = 1.5 \text{ to } 13.75\text{V}$		0.1	0.2	%
ET1117-1.5	$I_O = 0, V_{in} = 3.0\text{V to } 12\text{V}$		2	7	mV
ET1117-1.8	$I_O = 0, V_{in} = 3.3\text{V to } 12\text{V}$		2	7	mV
ET1117-2.5	$I_O = 0, V_{in} = 4.0\text{V to } 12\text{V}$		2	7	mV
ET1117-2.85	$I_O = 0, V_{in} = 4.4\text{V to } 12\text{V}$		2	7	mV
ET1117-3.3	$I_O = 0, V_{in} = 4.8\text{V to } 12\text{V}$		3	7	mV
ET1117-5.0	$I_O = 0, V_{in} = 6.5\text{V to } 15\text{V}$		4	10	mV
LOAD REGULATION					
ET1117(Adjustable) <sup>(1)</sup>	$I_O = 10\text{mA to } 1\text{A}, V_{in} - V_O = 2\text{V}$		0.2	0.4	%
ET1117-1.5	$I_O = 1 \text{ to } 1\text{A}, V_{in} = 3.5\text{V}$		3	10	mV
ET1117-1.8	$I_O = 1 \text{ to } 1\text{A}, V_{in} = 3.8\text{V}$		3	10	mV
ET1117-2.5	$I_O = 1 \text{ to } 1\text{A}, V_{in} = 4.5\text{V}$		3	10	mV
ET1117-2.85	$I_O = 1 \text{ to } 1\text{A}, V_{in} = 4.85\text{V}$		3	10	mV
ET1117-3.3	$I_O = 1 \text{ to } 1\text{A}, V_{in} = 5.3\text{V}$		4	12	mV
ET1117-5.0	$I_O = 1 \text{ to } 1\text{A}, V_{in} = 7.0\text{V}$		5	15	mV
DROPOUT VOLTAGE <sup>(2)</sup>					
All Models	$I_O = 800\text{mA}$		1.10	1.20	V
	$I_O = 1\text{A}$		1.2	1.30	V
	$I_O = 1\text{A} (T_j = 0^\circ\text{C} \text{ to } +125^\circ\text{C})$		1.2	1.48	V
CURRENT LIMIT	$V_{in} - V_O = 5\text{V}$	1000	1250	1600	mA
MINIMUM LOAD CURRENT Adjustable	$V_{in} - V_O = 12\text{V}$		5	10	mA

QUIESCENT CURRENT	$V_{in} - V_O = 5V$	5.2	10	MA
Adjust PIN Current vs Load Current, ET1117	$I_O = 10mA, V_{in} - V_O = 1.5V \text{ to } 12V$	50	120	$\mu A$
	$I_O = 10mA \text{ to } 1A, V_{in} - V_O = 1.5V \text{ to } 12V$	0.5	5	$\mu A$
TEMPERATURE DRIFT	$T_j = 0^\circ C \text{ to } +125^\circ C$	0.5		%

- NOTES:** (1) AMS1117 adjustable versions require a minimum load current for  $\pm 3\%$  regulation.  
(2) Dropout voltage is the input voltage minus output voltage that produces a 1% decrease in output voltage.