

1.Features

- Output current in excess of 1A
- Output voltages of 5V
- Thermal overload protection
- Output transition SOA protection
- 2% output voltage tolerance
- Guaranteed in extended temperature range

2.Absolute maximum ratings

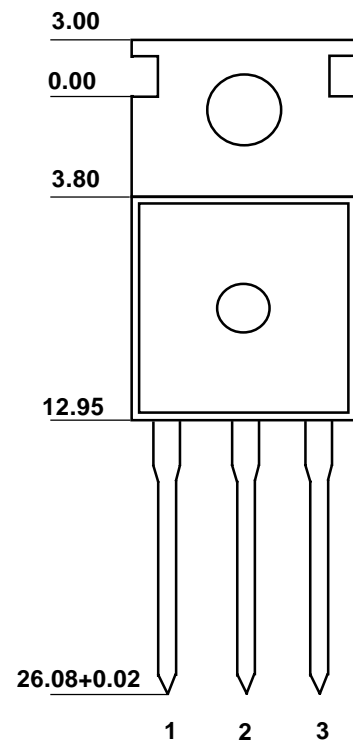
Table1: Maximum ratings($T_A=25\text{ }^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
DC input voltage ($V_o=5\sim 18$)	V_i	35	V
Thermal resistance junction-case	R_{oJC}	5	$^\circ\text{C/W}$
Thermal resistance junction-ambient	R_{oJA}	65	$^\circ\text{C/W}$
Operating junction temperature range	T_{oPR}	0~125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-65~150	$^\circ\text{C}$

3.Pin information & Package information

Table2: Pin information & Package information

Pin	Description
1	Input
2	GND
3	Output



4. Electrical characteristics

Table3: Electrical characteristics($0^{\circ}\text{C}\leq T_j\leq 125^{\circ}\text{C}$, $I_o=500\text{mA}$, $V_i=11\text{V}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25^{\circ}\text{C}$	4.8	5.0	5.2	V
		$5.0\text{mA}\leq I_o\leq 1.0\text{A}$, $P_D\leq 15\text{W}$, $7.0\text{V}\leq V_i\leq 20\text{V}$	4.75	5.0	5.25	V
Line regulation	ΔV_o	$T_j=25^{\circ}\text{C}$, $7.0\text{V}\leq V_i\leq 25\text{V}$		4.0	100	mV
		$T_j=25^{\circ}\text{C}$, $9.0\text{V}\leq V_i\leq 13\text{V}$		1.6	50	mV
Load regulation	ΔV_o	$T_j=25^{\circ}\text{C}$, $5.0\text{mA}\leq I_o\leq 1.5\text{A}$		9	100	mV
		$T_j=25^{\circ}\text{C}$, $250\text{mA}\leq I_o\leq 750\text{mA}$		4	50	mV
Quiescent	I_q	$T_j=25^{\circ}\text{C}$		5.0	8	mA
Quiescent current change	ΔI_q	$5.0\text{mA}\leq I_o\leq 1.0\text{A}$		0.03	0.5	mA
		$7.0\text{V}\leq V_i\leq 25\text{V}$		0.3	1.3	mA
Output voltage drift	$\Delta V_o / \Delta T$	$I_o=5\text{mA}$		-0.8		mV/°C
Output noise voltage	V_n	$T_A=25^{\circ}\text{C}$, $10\text{Hz}\leq f\leq 100\text{KHz}$		42		uV
Supply voltage rejection	RR	$f=120\text{Hz}$, $120\text{V}\leq V_i\leq 18\text{V}$	62	73		dB
Dropout	V_d	$I_o=1\text{A}$, $T_j=25^{\circ}\text{C}$		2		V
Output resistance	R_o	$f=1\text{KHz}$		15		mohm
Short circuit current	I_{SC}	$V_i=35\text{V}$, $T_j=25^{\circ}\text{C}$		0.23		A
Short circuit peak current	I_{px}	$T_j=25^{\circ}\text{C}$		2.2		A