

Dual 5A And 1A Low Dropout Adjust Fixed Output Regulator

The PJ1261 combines a dual low drop out regulators with fixed and Adjust output single package with the 3.3V output having a minimum of 1A and the Adjustable having a 5A output current capability. This product is specifically designed to provide well regulated supplies for 5V to 3.3V and adjust it to 5V supplies for the new generation of the Klamath processor applications.

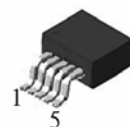
APPLICATIONS

- Hard Disk Drives, CD-ROMs, DVDs
- High efficiency linear regulators
- Post regulators for switching supplies
- ADSL and Cable Modems
- Motherboard with multiple supplies

FEATURES

- Low dropout voltage
- Load regulation : 0.5% typical
- On-chip thermal limiting
- Fixed 3.3V and Adjustable

TO-263-5L

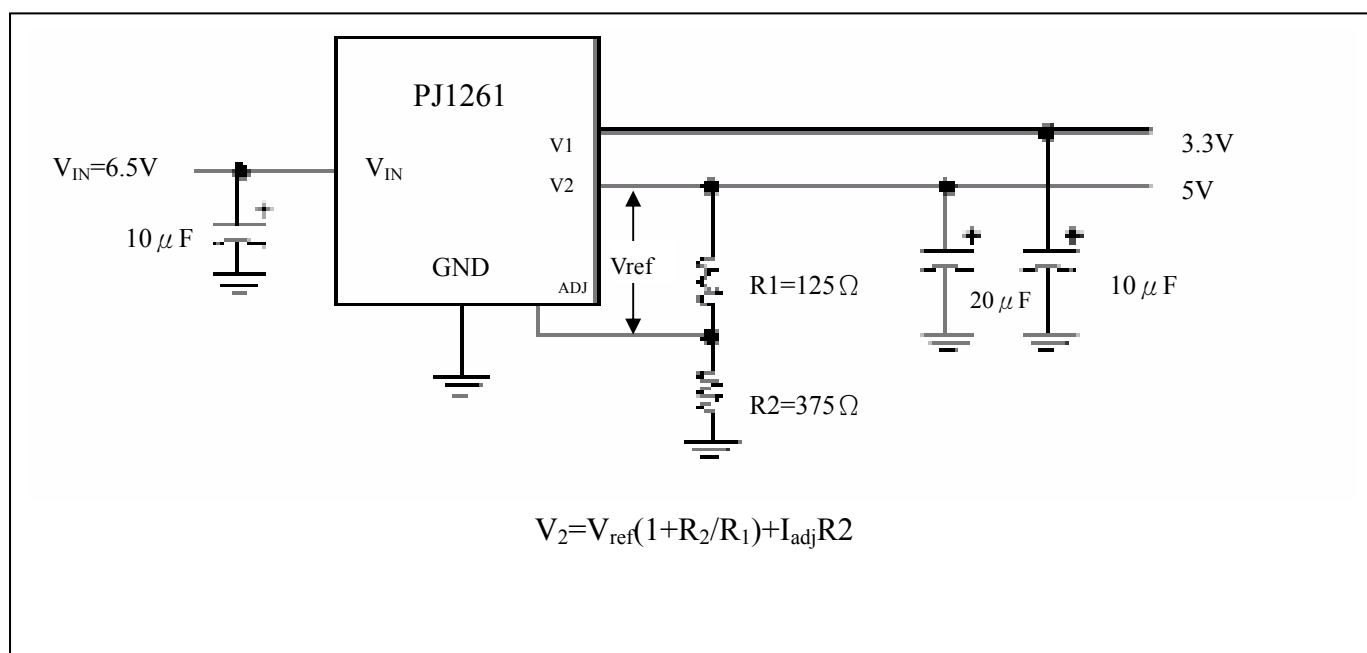


Pin
1. V1/3.3V
2. GND
3. V₂
4. ADJ
5. Vin

ORDERING INFORMATION

Device	Operating Temperature	Package
PJ1261CM	0°C TO 75°C	TO-263-5L

BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS

Parameter	Min	Value	Unit
V_{IN}	-	7	V
Operating Junction Temperature Range	0	150	°C
Storage Temperature Range	-65	150	°C
Lead Temperature(Soldering, 10 sec)	-	300	°C

ELECTRICAL CHARACTERISTICS

(Operating Conditions: $V_{IN} \leq 7V$, $T_J = 25^\circ C$ unless otherwise specified.)

The Denotes specifications which apply over the specified operating temperature range of $0^\circ C$ to $125^\circ C$ junction temperature.

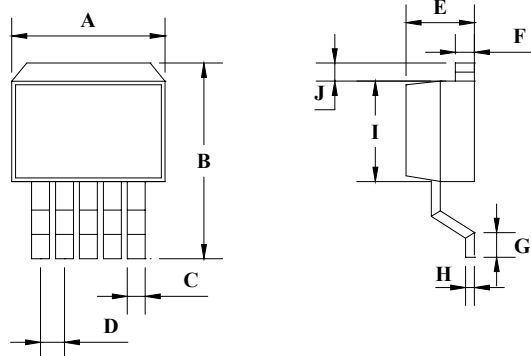
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reference Voltage	V_{REF}	$I_{OUT} = 10mA$, $V_{IN} = 6.5V$	1.225	1.250	1.275	V
Output Voltages	V_{OUT}	$I_{OUT} = 10mA$, $V_{IN} = 6.5V$	3.234	3.300	3.366	V
Line Regulation (both outputs)	REG_{LINE}	$I_{OUT} = 10mA$, $6V \leq V_{IN} \leq 7V$	-	0.2	0.5	%
Load Regulation (both output)	REG_{LOAD}	$V_{IN} = 6.3V$, $I_{O1} = 1A$	-	0.5	1.0	%
		$V_{IN} = 6.3V$, $I_{O2} = 5A$				
Time to Output Voltages Valid	-	From $V_{IN} \geq 6V$	-	5	-	msec
Dropout Voltage	V_D	$I_{O1} = 1A$	-	1.2	1.4	V
		$I_{O2} = 5A$				
Current Limit	I_{LIMIT}	$V_{IN} = 7V$, V_1	1	1.5	-	A
		V_2	5	6.		
Minimum Load Current(Both outputs)	I_{LIMIT}	$6.5 \leq V_{IN} \leq 7V$	1.0	-	-	mA
Quiescent Current	I_Q	$V_{IN} = 6.5V$	-	6	14	mA
Adjust Pin Current	I_{ADJ}	$V_{IN} = 6.5V$	-	60	120	μA
Ripple Rejection (both outputs)	RSRR	$F = 120Hz$, $C_{OUT} = 22\mu f$ Tantalum, $V_{IN} = 6.5V$, $I_{OUT} = 1A$	60	-	-	dB
Long-Term Stability	L_S	$T_A = 125^\circ C$, 1000hrs	-	0.03	1.0	%
Ripple Rejection	RSRR	$T_A = 25^\circ C$, $10Hz \leq f \leq 10kHz$	60	2.5	-	dB
Thermal Resistance, Junction to case	Q_{th}	TO-263-51	-	2	-	°C/W
Thermal Shutdown	-	-	-	155	-	°C
Thermal Shutdown Hysteresis	-	Junction Temperature	-	10	-	°C

Notes:

1. See thermal regulation specifications for changes in output voltage due to heation effects. Load and line regulation are measured at a constant junction temperature by low duty cycle pulse testing.
2. Power dissipation is determined by input/output differential and the output current. Guaranteed maximum output power will not be available over the full input/output voltage range.

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TO-263-5L Unit : mm



TO-263-5L DIMENSION				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	10.22	10.26	0.402	0.404
B	14.60	15.87	0.575	0.625
C	0.75	0.77	0.030	0.030
D	1.573	1.827	0.062	0.072
E	4.56	4.57	0.179	0.180
F	1.24	1.27	0.049	0.05
G	2.28	2.79	0.090	0.110
H	0.28	0.32	0.011	0.013
I	8.24	8.28	0.324	0.326
J	1.54	1.80	0.060	0.071