

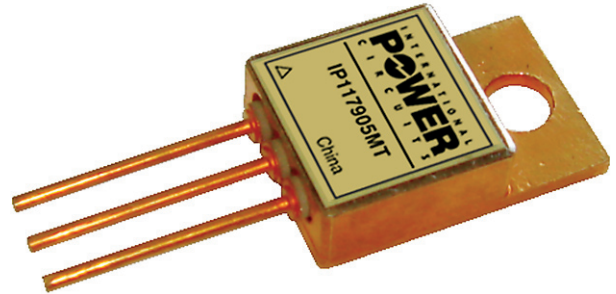


IP1179XX Series

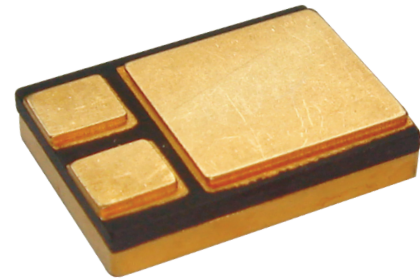
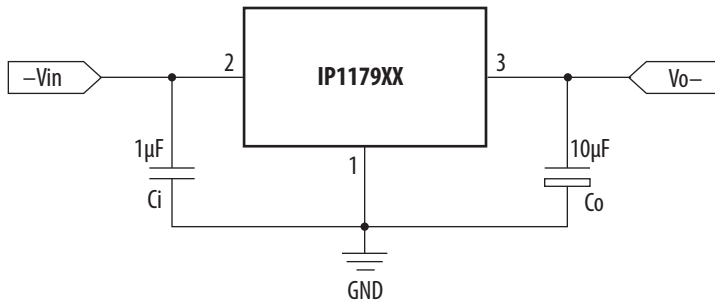
Negative Voltage Linear Regulators

FEATURES

- Output current up to 1.5A
- Available in $-5.0V$, $-12.0V$, $-15.0V$ versions
- Thermal overload protection
- Short circuit protection
- Packaging options: T0-257 and ceramic surface mount
- Operating temperature range T_c $-55^{\circ}C$ to $+125^{\circ}C$



TYPICAL APPLICATION SCHEMATIC



ABSOLUTE MAXIMUM RATINGS

INPUT VOLTAGE:	-35Vdc
OUTPUT CURRENT:	1.5A
SOLDERING TEMPERATURE:	300°C (10s)
OPERATING TEMP (Tc):	-55°C to +125°C
STORAGE TEMPERATURE T _{ST} :	-65°C to +150°C
THERMAL RESISTANCE RJC: (junction to case)	Symbol S Package T/TD Package Unit Rthj-c 3.5 5 °C/W

RECOMMENDED MAXIMUM RATINGS (Tc = 25°C)

INPUT VOLTAGE:	-25Vdc
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THERMAL RESISTANCE (JUNCTION TO CASE)

Symbol	S Package	T/TD Package	Unit
Rthj-c	3.5	5	°C/W

ELECTRICAL CHARACTERISTICS

PARAMETER	CONDITIONS (PO≤7.5W)	A	IP117905			IP117912			IP117915			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
OUTPUT VOLTAGE			-5V			-12V			-15V			V _{DC}
INPUT RANGE			-7.5	-	-25	-14.5	-	-30	-17.5	-	-30	V
OUTPUT VOLTAGE	I _o = 500mA	1	-5±0.35			-12±0.5			-15±0.6			V
		2,3	(Vi=10V)			(Vi=19V)			(Vi=23V)			
LINE REGULATION	I _o = 500mA	1	-	-	100	-	-	240	-	-	300	mV
			(Vi=7.5~-25V)			(Vi=14.5~-30V)			(Vi=17.5~-30V)			
		2,3	-	-	100	-	-	240	-	-	300	
			(Vi=7.5~-25V)			(Vi=14.5~-25V)			(Vi=17.5~-30V)			
LOAD REGULATION	I _o = 5mA - 1A	1	-	-	100	-	-	240	-	-	300	mV
			(Vi=10V)			(Vi=19V)			(Vi=23V)			
	2,3	-	-	100	-	-	240	-	-	300		
		(Vi=10V)			(Vi=19V)			(Vi=23V)				
QUIESCENT CURRENT		1	-	-	3	-	-	3	-	-	3	mA
SUPPLY VOLTAGE REJECTION ¹		1	54	-	-	54	-	-	54	-	-	dB
			(ΔV = 10V f=120Hz)			(ΔV = 10V f=120Hz)			(ΔV = 10V f=120Hz)			
DROPOUT VOLTAGE	I _o = 1A	1	-	-	2.5	-	-	2.5	-	-	2.5	V
SHORT CIRCUIT CURRENT		1	-	2.1	-	-	1.5	-	-	1.3	-	A

NOTES

¹When the internal power dissipation exceeds over 7.5 watts, a heatsink as large as possible should be used.

Do not exceed a maximum case temperature of +125°.

²Other outputs ranging from -6V, -8V, -18V, -20V, -24V are also available.

ENVIRONMENTAL SCREENING

SUBGROUP	TEST ITEM	MIL-STD-883 & METHOD	CONDITION	M	E	I
1	INTERNAL VISUAL	2017	–	100%	100%	100%
2	SEAL	1014	Fine Leak: A1 Gross Leak: C1	100%	100%	100%
3	TEMP CYCLING	1010	–65°C - 150°C 10 Times	100%	100%	–
4	CONSTANT ACCELERATION	–	Y1 orientation, 1 min, 20000g	100%	100%	–
5	INTERIM ELECTRICAL TEST	–	–	100%	100%	100%
6	BURN-IN	1015	TA=125°C, 160h	100%	–	–
			TA=125°C, 96h	–	100%	–
			TA=125°C, 48h	–	–	100%
7	FINAL ELECTRICAL TEST - Normal Temp	–	+25°C	100%	100%	100%
	FINAL ELECTRICAL TEST - Max Rated		+125°C	100%	100%	–
	FINAL ELECTRICAL TEST - Min Rated		–55°C	100%	100%	–
8	SEAL	1014	Fine Leak: A1 Gross Leak: C1	100%	100%	100%
9	EXTERNAL INSPECTION	2009	–	100%	100%	100%

ORDERING INFORMATION

IP 1179 05 M T

Packages: T: TO-257 with straight leads
TD: TO-257 with bent leads
S: Surface Mount

M: Military E: High Reliability I: Industrial

Output Voltage: 05 = –5V, 12 = –12V, 15 = –15V

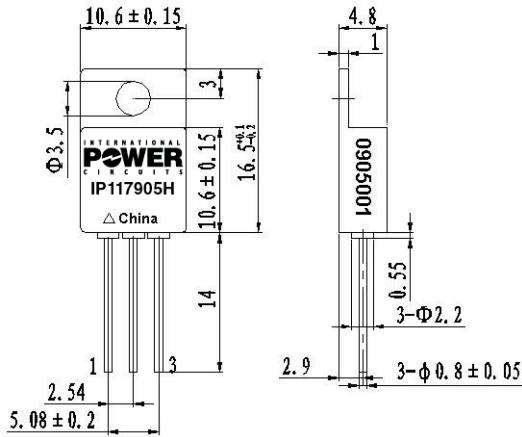
Part Number: 1179 Negative Voltage Regulators Series

International Power Circuits

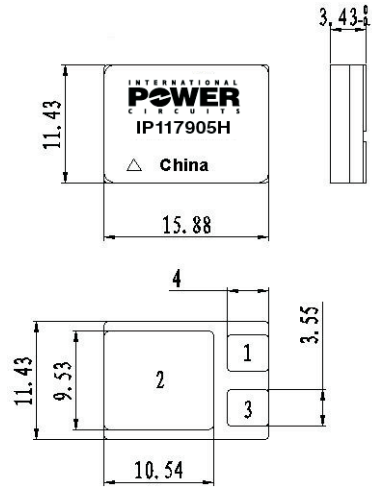
CASE DIMENSIONS AND PIN-OUT INFORMATION

Mechanical specifications are in mm.

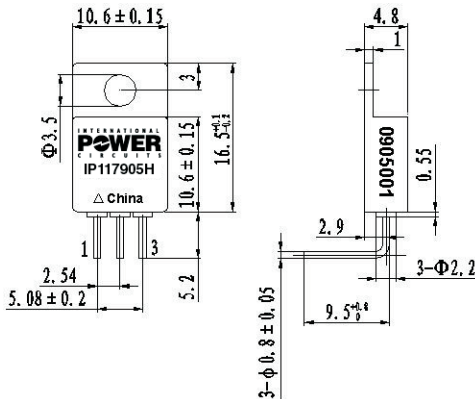
T Package



S Package



TD Package



PIN FUNCTIONS (M/E) IP1179 Series		PIN
GROUND	GND	1
NEGATIVE INPUT	$-V_{IN}$	2
NEGATIVE OUTPUT	$-V_O$	3