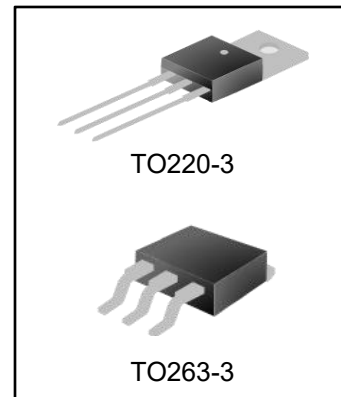


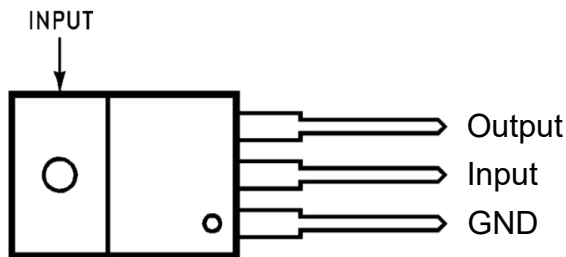
## FEATURES

- Output current in excess of 1.0A
- Internal short current circuit limiting
- Internal thermal overload protection
- Output voltage offered of 4% tolerance

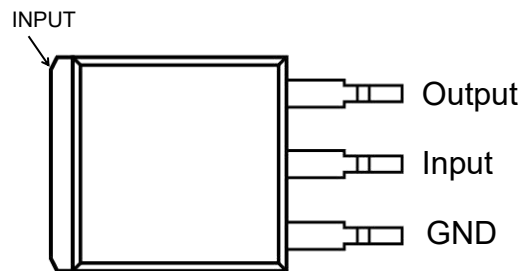


## ORDERING INFORMATION

DEVICE	Package Type	MARKING	Packing	Packing Qty
LM7905T	TO220-3	LM7905	TUBE	1000pcs/box
LM7906T	TO220-3	LM7906	TUBE	1000pcs/box
LM7908T	TO220-3	LM7908	TUBE	1000pcs/box
LM7912T	TO220-3	LM7912	TUBE	1000pcs/box
LM7915T	TO220-3	LM7915	TUBE	1000pcs/box
LM7918T	TO220-3	LM7918	TUBE	1000pcs/box
LM7924T	TO220-3	LM7924	TUBE	1000pcs/box
LM7905S/TR	TO263-3	LM7905	REEL	500 pcs/reel
LM7906S/TR	TO263-3	LM7906	REEL	500 pcs/reel
LM7908S/TR	TO263-3	LM7908	REEL	500 pcs/reel
LM7912S/TR	TO263-3	LM7912	REEL	500 pcs/reel
LM7915S/TR	TO263-3	LM7915	REEL	500 pcs/reel
LM7918S/TR	TO263-3	LM7918	REEL	500 pcs/reel
LM7924S/TR	TO263-3	LM7924	REEL	500 pcs/reel

**PIN CONFIGURATION**


TO-220-3



TO-263-3

**ABSOLUTE MAXIMUM RATINGS**

Condition	VALUE	UNIT
Maximum input voltage at $T_J=25^\circ\text{C}$	-35	V
Maximum operating junction temperature	+125	$^\circ\text{C}$
Lead Temperature (TL) (Soldering, 10 seconds)	+245	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS LM7905**

( $V_{IN} = -10\text{V}$ ,  $I_o = 500\text{mA}$ ,  $C_{IN} = 2.2\mu\text{F}$ ,  $C_o = 1.0\mu\text{F}$ ,  $T_J = 25^\circ\text{C}$ , unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	NORMS		UNIT
			Min	Max	
Output Voltage	$V_o$	$-7.0\text{V} \geq V_{IN} \geq -20\text{V}$ $5.0\text{mA} \leq I_o \leq 1.0\text{A}$	-4.82	-5.18	V
Line Regulation	$\Delta U_v$	$I_o = 100\text{mA}$ , $-7.0\text{V} \geq V_{IN} \geq -25\text{V}$ $I_o = 100\text{mA}$ , $-8.0\text{V} \geq V_{IN} \geq -12\text{V}$ $I_o = 500\text{mA}$ , $-7.0\text{V} \geq V_{IN} \geq -25\text{V}$ $I_o = 500\text{mA}$ , $-8.0\text{V} \geq V_{IN} \geq -12\text{V}$		47.5 23.5 95 47.5	mV
Load Regulation	$\Delta U_l$	$5.0\text{mA} \leq I_o \leq 1.5\text{A}$ $250\text{mA} \leq I_o \leq 750\text{mA}$		95 47.5	mV
Quiescent Current	$I_B$			7.8	mA
Quiescent Current Change	$\Delta I_B$	$-7.0\text{V} \geq V_{IN} \geq -25\text{V}$ $5.0\text{mA} \leq I_o \leq 1.5\text{A}$		1.25 0.48	mA

**ELECTRICAL CHARACTERISTICS LM7906**

 (VIN = -11V, I<sub>o</sub> = 500mA, C<sub>IN</sub> = 2.2μF, C<sub>O</sub> = 1.0μF, T<sub>J</sub> = 25°C, unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	NORMS		UNIT
			Min	Max	
Output Voltage	V <sub>o</sub>	-8.0V ≥ V <sub>IN</sub> ≥ -21V 5.0mA ≤ I <sub>o</sub> ≤ 1.0 A	-5.77	-6.23	V
Line Regulation	ΔU <sub>v</sub>	I <sub>o</sub> = 100mA, -8.0V ≥ V <sub>IN</sub> ≥ -25V I <sub>o</sub> = 100mA, -9.0V ≥ V <sub>IN</sub> ≥ -13V I <sub>o</sub> = 500mA, -8.0V ≥ V <sub>IN</sub> ≥ -25V I <sub>o</sub> = 500mA, -9.0V ≥ V <sub>IN</sub> ≥ -13V		57 28.5 114 57	mV
Load Regulation	ΔU <sub>I</sub>	5.0mA ≤ I <sub>o</sub> ≤ 1.5 A 250mA ≤ I <sub>o</sub> ≤ 750mA		114 57	mV
Quiescent Current	I <sub>B</sub>			7.8	mA
Quiescent Current Change	ΔI <sub>B</sub>	-8.0V ≥ V <sub>IN</sub> ≥ -25V 5.0mA ≤ I <sub>o</sub> ≤ 1.5 A		1.25 0.48	mA

**ELECTRICAL CHARACTERISTICS LM7908**

 ( $V_{IN} = -14V$ ,  $I_O = 500mA$ ,  $C_{IN} = 2.2\mu F$ ,  $C_O = 1.0\mu F$ ,  $T_J = 25^\circ C$ , unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	NORMS		UNIT
			Min	Max	
Output Voltage	$V_O$	$-10.5V \geq V_{IN} \geq -23V$ $5.0mA \leq I_O \leq 1.0 A$	-7.72	-8.28	V
Line Regulation	$\Delta U_V$	$I_O = 100mA$ , $-10.5V \geq V_{IN} \geq -25V$ $I_O = 100mA$ , $-11V \geq V_{IN} \geq -17V$ $I_O = 500mA$ , $-10.5V \geq V_{IN} \geq -25V$ $I_O = 500mA$ , $-11V \geq V_{IN} \geq -17V$		76 38 152 76	mV
Load Regulation	$\Delta U_I$	$5.0mA \leq I_O \leq 1.5 A$ $250mA \leq I_O \leq 750mA$		152 76	mV
Quiescent Current	$I_B$			7.8	mA
Quiescent Current Change	$\Delta I_B$	$-10.5V \geq V_{IN} \geq -25V$ $5.0mA \leq I_O \leq 1.5 A$		0.98 0.48	mA

**ELECTRICAL CHARACTERISTICS LM7912**

 ( $V_{IN} = -19V$ ,  $I_O = 500mA$ ,  $C_{IN} = 2.2\mu F$ ,  $C_O = 1.0\mu F$ ,  $T_J = 25^\circ C$ , unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	NORMS		UNIT
			Min	Max	
Output Voltage	$V_O$	$-14.5V \geq V_{IN} \geq -21V$ $5.0mA \leq I_O \leq 1.0 A$	-11.52	-12.48	V
Line Regulation	$\Delta U_V$	$I_O = 100mA$ , $-14.5V \geq V_{IN} \geq -30V$ $I_O = 100mA$ , $-16V \geq V_{IN} \geq -22V$ $I_O = 500mA$ , $-14.5V \geq V_{IN} \geq -30V$ $I_O = 500mA$ , $-16V \geq V_{IN} \geq -22V$		114 58.5 228 114	mV
Load Regulation	$\Delta U_I$	$5.0mA \leq I_O \leq 1.5 A$ $250mA \leq I_O \leq 750mA$		228 114	mV
Quiescent Current	$I_B$			7.8	mA
Quiescent Current Change	$\Delta I_B$	$-14.5V \geq V_{IN} \geq -30V$ $5.0mA \leq I_O \leq 1.5 A$		1.25 0.48	mA

**ELECTRICAL CHARACTERISTICS LM7915**

 (V<sub>IN</sub> = -23V, I<sub>o</sub> = 500mA, C<sub>IN</sub> = 2.2μF, C<sub>O</sub> = 1.0μF, T<sub>J</sub> = 25°C, unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	NORMS		UNIT
			Min	Max	
Output Voltage	V <sub>o</sub>	-17.5V ≥ V <sub>IN</sub> ≥ -30V 5.0mA ≤ I <sub>o</sub> ≤ 1.0 A	-14.44	-15.56	V
Line Regulation	ΔU <sub>v</sub>	I <sub>o</sub> = 100mA, -17.5V ≥ V <sub>IN</sub> ≥ -30V I <sub>o</sub> = 100mA, -20V ≥ V <sub>IN</sub> ≥ -26V I <sub>o</sub> = 500mA, -17.5V ≥ V <sub>IN</sub> ≥ -30V I <sub>o</sub> = 500mA, -20V ≥ V <sub>IN</sub> ≥ -26V		142 71 285 142	mV
Load Regulation	ΔU <sub>I</sub>	5.0mA ≤ I <sub>o</sub> ≤ 1.5 A 250mA ≤ I <sub>o</sub> ≤ 750mA		285 142	mV
Quiescent Current	I <sub>B</sub>			7.8	mA
Quiescent Current Change	ΔI <sub>B</sub>	-17.5V ≥ V <sub>IN</sub> ≥ -30V 5.0mA ≤ I <sub>o</sub> ≤ 1.5 A		0.98 0.48	mA

**ELECTRICAL CHARACTERISTICS LM7918**

 (V<sub>IN</sub> = -27V, I<sub>o</sub> = 500mA, C<sub>IN</sub> = 2.2μF, C<sub>O</sub> = 1.0μF, T<sub>J</sub> = 25°C, unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	NORMS		UNIT
			Min	Max	
Output Voltage	V <sub>o</sub>	-21V ≥ V <sub>IN</sub> ≥ -33V 5.0mA ≤ I <sub>o</sub> ≤ 1.0 A	-17.34	-18.66	V
Line Regulation	ΔU <sub>v</sub>	I <sub>o</sub> = 100mA, -21V ≥ V <sub>IN</sub> ≥ -33V I <sub>o</sub> = 100mA, -24V ≥ V <sub>IN</sub> ≥ -30V I <sub>o</sub> = 500mA, -21V ≥ V <sub>IN</sub> ≥ -33V I <sub>o</sub> = 500mA, -24V ≥ V <sub>IN</sub> ≥ -30V		171 85.5 342 171	mV
Load Regulation	ΔU <sub>I</sub>	5.0mA ≤ I <sub>o</sub> ≤ 1.5 A 250mA ≤ I <sub>o</sub> ≤ 750mA		342 171	mV
Quiescent Current	I <sub>B</sub>			7.8	mA
Quiescent Current Change	ΔI <sub>B</sub>	-21V ≥ V <sub>IN</sub> ≥ -33V 5.0mA ≤ I <sub>o</sub> ≤ 1.5 A		0.98 0.48	mA

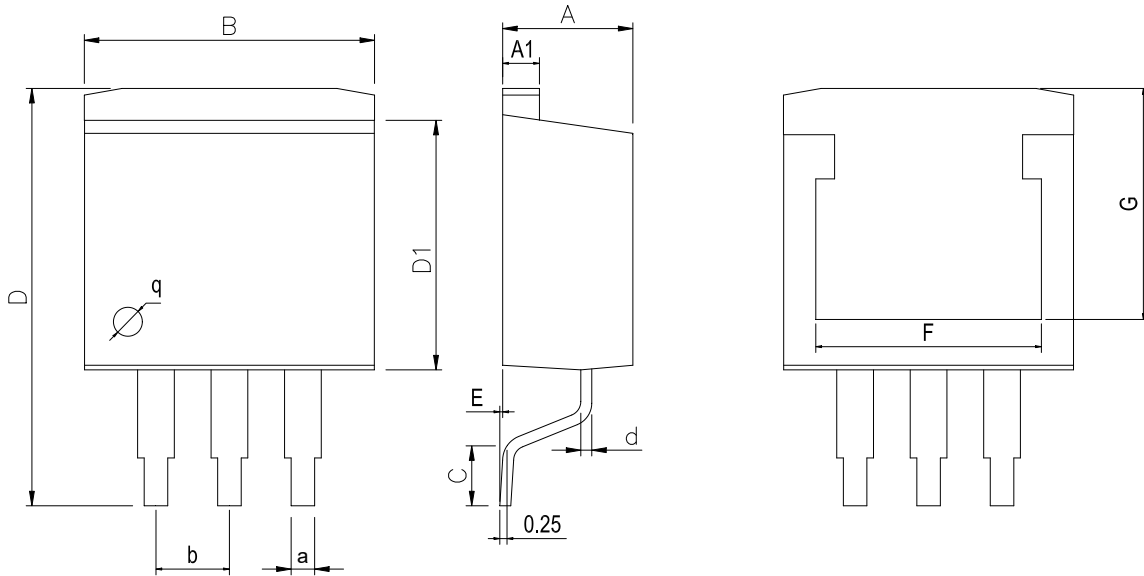
**ELECTRICAL CHARACTERISTICS LM7924**

 ( $V_{IN} = -33V$ ,  $I_o = 500mA$ ,  $C_{IN} = 2.2\mu F$ ,  $C_o = 1.0\mu F$ ,  $T_J = 25^\circ C$ , unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	NORMS		UNIT
			Min	Max	
Output Voltage	$V_o$	$-27V \geq V_{IN} \geq -38V$ $5.0mA \leq I_o \leq 1.0 A$	-23.05	-24.95	V
Line Regulation	$\Delta U_v$	$I_o = 100mA$ , $-27V \geq V_{IN} \geq -38V$ $I_o = 100mA$ , $-30V \geq V_{IN} \geq -36V$ $I_o = 500mA$ , $-27V \geq V_{IN} \geq -38V$ $I_o = 500mA$ , $-30V \geq V_{IN} \geq -36V$		228 114 446 228	mV
Load Regulation	$\Delta U_l$	$5.0mA \leq I_o \leq 1.5 A$ $250mA \leq I_o \leq 750mA$		446 228	mV
Quiescent Current	$I_B$			7.8	mA
Quiescent Current Change	$\Delta I_B$	$-27V \geq V_{IN} \geq -33V$ $5.0mA \leq I_o \leq 1.5 A$		0.98 0.48	mA

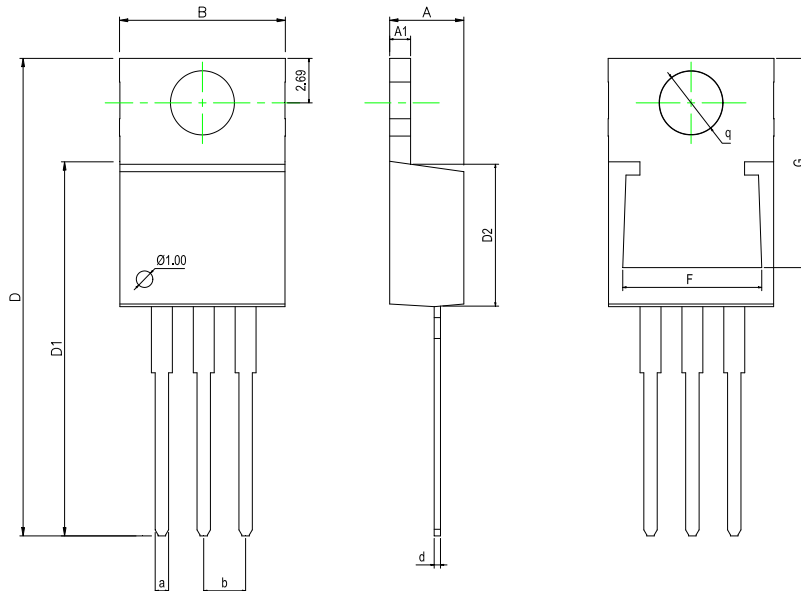
**PHYSICAL DIMENSIONS**

TO-263-3



Dimensions In Millimeters(TO-263-3)											
Symbol:	A	A1	B	C	D	D1	E	F	G	a	b
Min:	4.45	1.22	10	1.89	13.7	8.38	0	8.332	7.70	0.71	2.54BSC
Max:	4.62	1.32	10.4	2.19	14.6	8.89	0.305	8.552	8.10	0.97	

TO-220-3



Dimensions In Millimeters(TO-220-3)												
Symbol:	A	A1	B	D	D1	D2	F	G	a	d	b	q
Min:	4.45	1.22	10	28.2	22.22	8.50	8.30	12.55	0.71	0.33	2.54BS	3.80TYP
Max:	4.62	1.32	10.4	28.9	22.62	9.10	8.55	12.75	0.97	0.42	C	

## REVISION HISTORY

DATE	REVISION	PAGE
2018-1-5	New	1-9
2023-7-24	Update Lead Temperature	2



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