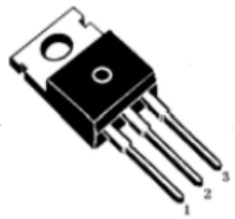
OTOMO

Otomo Semiconductor (Shenzhen) Co., Ltd

7809-1.5A 3 TERMINAL 1.5A POSITIVE VOLTAGE REGULATORS

FEATURES

1. Output current up to 1.5A
2. Fixed output voltage of 9V
3. Thermal overload shutdown protection
4. Short circuit current limiting



1. Input 2. Gnd 3. Output

Absolute Maximum Ratings（Operating temperature range applies unless otherwise specified, Tamb=25 °C）

Characteristic	Symbol	Value	Unit
Input voltage	Vi	35	V
Operating Temperature	Topr	-40~+125	℃
Storage Temperature	Tstg	-65~+150	℃

ELECTRICAL CHARACTERISTICS(Refer to test circuits,0<Tj<125℃,Io=500mA,Vi=15V,Ci=0.33μF, Co=0.1μF, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Units
Output voltage	Vo	Tj=25℃	8.65	9.00	9.35	V
		5.0mA<Io<1.0A, PD <15W Vi=11.5V to 24V	8.6	9.00	9.4	V
Line regulation	ΔVo	Tj=25℃,Vi=11.5V to 25V	-	6	180	mV
		Tj=25℃,Vi=12V to 25V	-	2	90	mV
Load regulation	ΔVo	Tj=25℃,Io=5.0mA to 1.5A	-	12	180	mV
		Tj=25℃,Io=250mA to 750mA	-	5	90	mV
Quiescent current	IQ	Tj=25℃	-	5.0	8	mA
Quiescent current change	ΔIQ	Io=5mA to 1.0A	-	-	0.5	mA
		Vi=12V to 26V	-	-	0.8	mA
Output voltage drift	ΔVo/ΔT	Io=5mA	-	1.3	-	mV/℃
Output noise voltage	VN	f=10Hz to 100kHz,Ta=25℃	-	58	-	μV/Vo
Ripple rejection	RR	f=120Hz, Vi=13V to 23V	5 5	66	-	dB
Dropout voltage	Vo	Io=1.0A,Tj=25℃	-	2	-	V
Output resistance	Ro	f=1kHz	-	15	-	mΩ
Short circuit current	Isc	Vi=35V,Ta=25℃	-	230	-	mA
peak current	Ipk	Tj=25℃	-	2.2	-	A