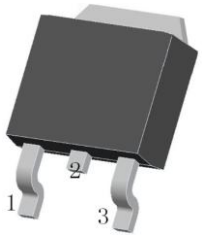
OTOMO

Otomo Semiconductor (Shenzhen) Co., Ltd.

7805-1.5A

3 TERMINAL 1.5A POSITIVE VOLTAGE REGULATORS



1.Input 2.Gnd 3.Output

FEATURES

1. Internal Thermal Overload Protection.
2. Internal Short Circuit Current Limiting.
3. Output Current up to 1.5A.

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

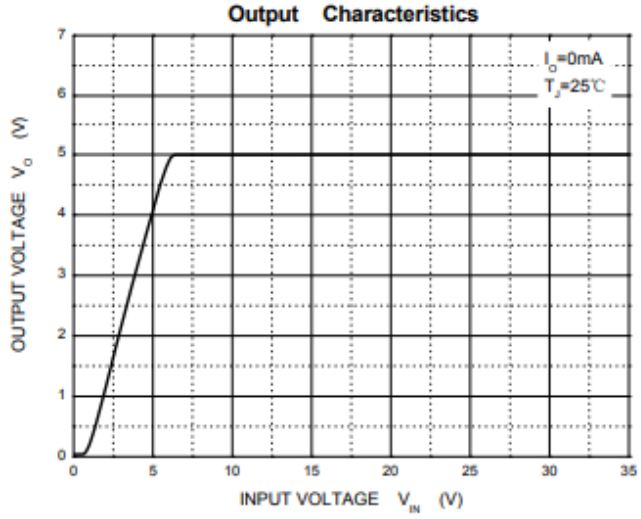
CHARACTERISTICS	SYMBOL	Value	UNITS
Input Voltage	V_{IN}	35	V
Output Current	I_{OUT}	1.5	A
Operating Temperature Range	Topr	-20~125	℃
Storage Temperature Range	Tstg	-55~150	℃

Operating Conditions: Vi=10V, Io=500mA, Ci=0.33μF, Co=0.1μF, 0°C<Tj<125°C Unless otherwise specified

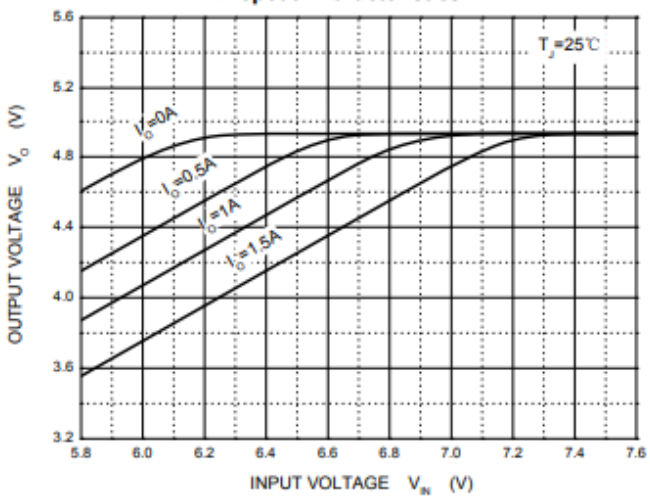
Parameter Name	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	Vo	Tj=25°C	4.80	5.00	5.20	V
		7V≤Vi≤20V, Io=5mA~1.0A	4.75		5.25	V
Load Regulation	ΔVo	Tj=25°C; Io=5mA~1.5A		9	100	mV
		Tj=25°C; Io=250mA~750mA		4	50	mV
Line Regulation	ΔVo	Tj=25°C; 7V≤Vi≤25V		4	100	mV
		Tj=25°C; 8V≤Vi≤12V		1.6	50	mV
Quiescent Current	Iq	Tj=25°C; Io=0mA		5.0	8	mA
Quiescent Current Change	ΔIq	7V≤Vi≤25V			1.3	mA
		5mA≤Io≤1.0A			0.5	mA
Output Noise Voltage	eN	f=10Hz to 100kHz,Ta=25℃		42		μV
Temperature Coefficient of Output Voltage	ΔVo/ΔT	Io=5mA		0.8		mV/℃
Ripple Rejection Ratio	RR	8V≤Vi≤18V; f=120Hz; Tj=25°C	62	73		dB
Dropout Voltage	Vd	Io=1.0A,Tj=25°C		2		V
Output resistance	Ro	f=1kHz		15		mΩ
Short circuit current	Isc	Vi=35V,Ta=25℃		230		mA
peak curren	Ipk	Tj=25℃		2.2		A

Typical Characteristics

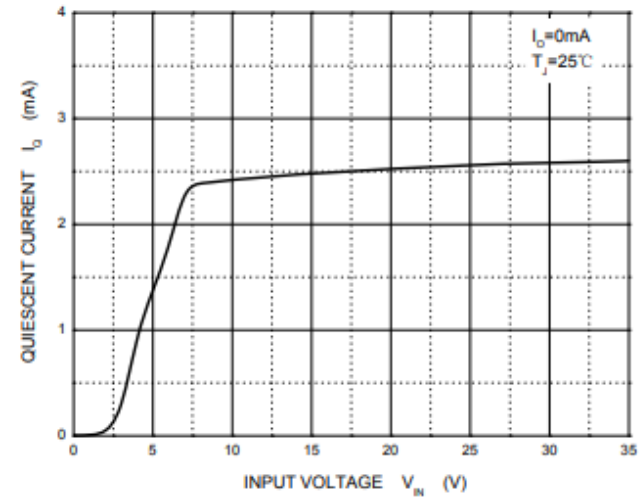
Output Characteristics



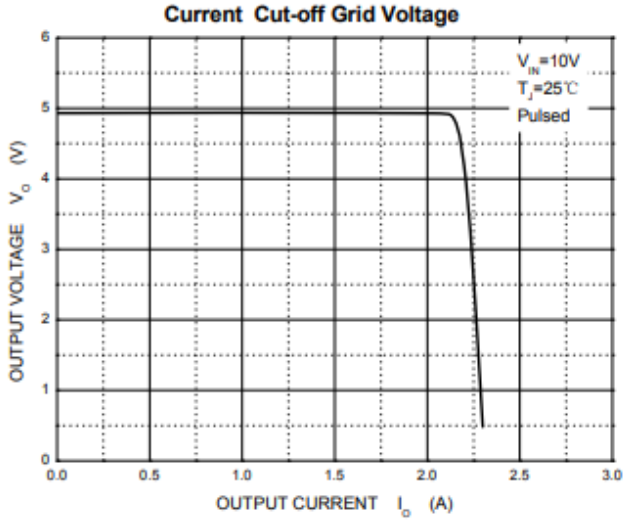
Dropout Characteristics



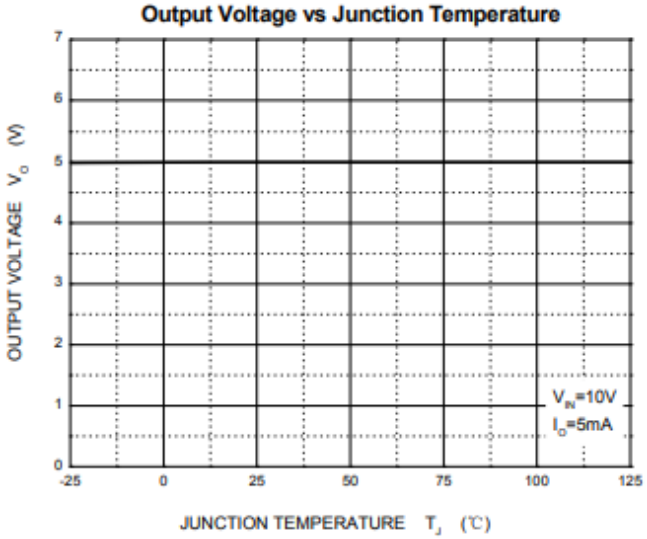
Quiescent Current



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve