

Three-terminal positive voltage regulator

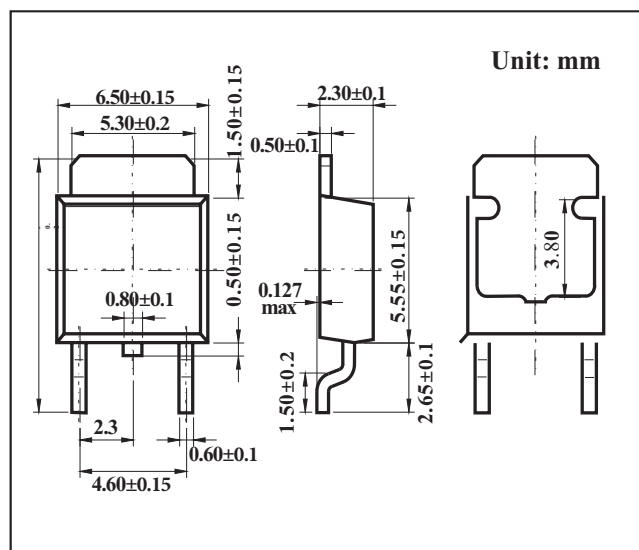
FEATURES

- Maximum output current I_{OM} : 1.5 A
- Output voltage V_O : 9 V
- Continuous total dissipation

$PD: 1.25 \text{ W } (T_a = 25^\circ\text{C})$

MECHANICAL DATA

- Case: TO-252 Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	°C/W
Thermal Resistance from Junction to Case	$R_{\theta JC}$	8.3	°C/W
Operating Junction Temperature Range	T_{OPR}	0~+150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=16\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

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Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_O	25°C	8.65	9	9.35	V
		11.5V≤ V_i ≤24V, $I_o=5\text{mA}-1\text{A}$, $P\leq 15\text{W}$	8.55	9	9.45	V
Load Regulation	ΔV_O	$I_o=5\text{mA}-1.5\text{A}$		12	180	mV
		$I_o=250\text{mA}-750\text{mA}$		4	90	mV
Line regulation	ΔV_O	11.5V≤ V_i ≤27V		7	180	mV
		13V≤ V_i ≤19V		2	90	mV
Quiescent Current	I_q	25°C		4.3	8	mA
Quiescent Current Change	ΔI_q	11.5V≤ V_i ≤27V			1	mA
		5mA≤ I_o ≤1A			0.5	mA
Output voltage drift	$\Delta V_O/\Delta T$	$I_o=5\text{mA}$		-1		mV/°C
Output Noise Voltage	V_N	10Hz≤ f ≤100KHz		60		uV
Ripple Rejection	RR	12V≤ V_i ≤22V, $f=120\text{Hz}$	55	70		dB
Dropout Voltage	V_d	$I_o=1\text{A}$		2		V
Output resistance	R_O	$f=1\text{KHz}$		18		mΩ
Short Circuit Current	I_{sc}	25°C		400		mA
Peak Current	I_{pk}	25°C		2.2		A

TYPICAL APPLICATION

