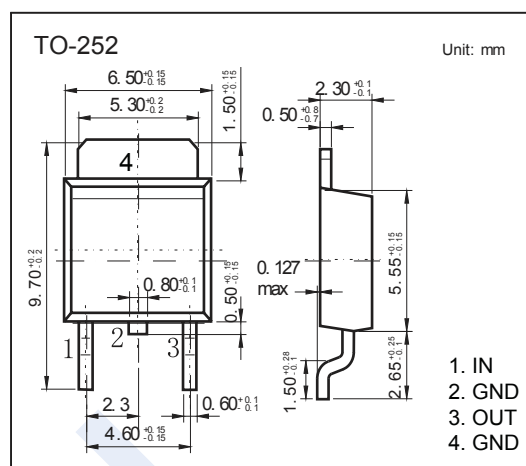


Three Terminal Positive Voltage Regulator

KA280M12

■ Features

- Maximum Output Current:
 $I_{OM} = 500\text{mA}$
- Output Voltage:
 $V_O = 12\text{V}$
- Continuous Total Dissipation:
 $P_D = 1.25\text{W}$ ($T_a = 25^\circ\text{C}$)



■ Absolute Maximum Ratings (Operating temperature range applies unless otherwise noted)

Parameter	Symbol	Rating	Unit
Input Voltage	V_i	35	V
Maximum Output Current	I_o	0.5	A
Thermal Resistance, Junction-to-Ambient	R_{thJA}	80	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	-25 to 125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to 150	

■ Electrical Characteristics at Specified Virtual Junction Temperature

($V_i = 19\text{V}$, $I_o = 350\text{mA}$, $C_i = 0.33\mu\text{F}$, $C_o = 0.1\mu\text{F}$, unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	25°C	11.5	12	12.5	V
		$14.5\text{V} \leq V_i \leq 27\text{V}$, $5\text{mA} \leq I_o \leq 350\text{mA}$	-25 ~ 125 $^\circ\text{C}$	11.4	12	12.6
Load Regulation	ΔV_o	$5\text{mA} \leq I_o \leq 500\text{mA}$	25°C		240	mV
		$5\text{mA} \leq I_o \leq 200\text{mA}$	25°C		120	
Line Regulation	ΔV_o	$14.5\text{V} \leq V_i \leq 30\text{V}$, $I_o = 200\text{mA}$	25°C		100	mV
		$16\text{V} \leq V_i \leq 30\text{V}$, $I_o = 200\text{mA}$	25°C		50	
Quiescent Current	I_q	25°C			6	mA
Quiescent Current Change	ΔI_q	$14.5\text{V} \leq V_i \leq 30\text{V}$, $I_o = 200\text{mA}$	-25 ~ 125 $^\circ\text{C}$		0.8	
		$5\text{mA} \leq I_o \leq 350\text{mA}$	-25 ~ 125 $^\circ\text{C}$		0.5	
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{kHz}$	25°C	75		$\mu\text{V}/V_o$
Ripple Rejection	RR	$15\text{V} \leq V_i \leq 25\text{V}$, $f = 120\text{Hz}$, $I_o = 300\text{mA}$	-25 ~ 125 $^\circ\text{C}$	55		dB
Dropout Voltage	V_d	$I_o = 350\text{mA}$	25°C	2		V
Short Circuit Current Limit	I_{sc}	$V_i = 19\text{V}$	25°C	240		mA
Peak Current	I_{pk}	25°C		0.7		A

* Pulse test.

■ Marking

Marking	KM12
---------	------

Three Terminal Positive Voltage Regulator

KA280M12

■ Typical Characteristics

