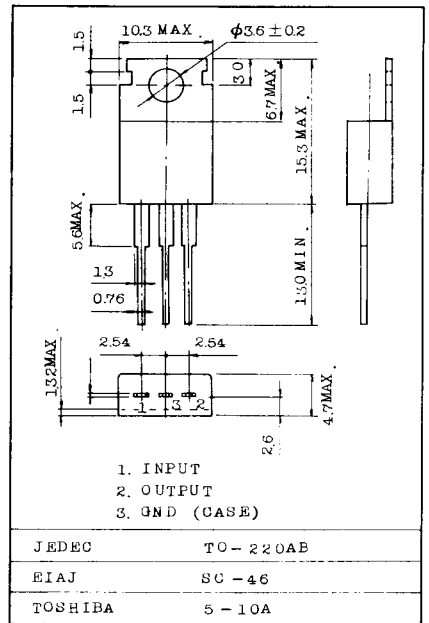


THREE TERMINAL POSITIVE VOLTAGE REGULATORS
5V, *6V, *8V, 9V, 10V, 12V, 15V, *18V, *20V, 24V

* Under development

- . Suitable for C-MOS, TTL, the other Digital IC's Power Supply
- . Internal Thermal Overload Protection
- . Internal Short Circuit Current Limiting
- . Output Current in excess of 1A

Unit in mm



MOUNTING KIT No. A075.

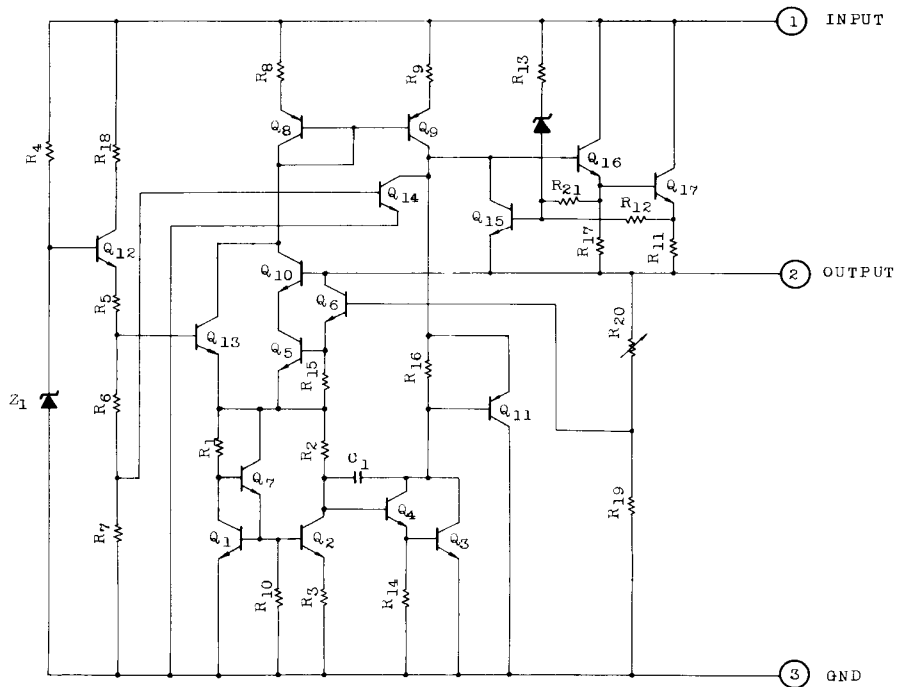
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Input Voltage	V _{IN}	35	V
		40	
Power Dissipation (Note)	P _D	20.8	W
Operating Temperature	T _{opr}	-30 ~ 75	°C
Storage Temperature	T _{stg}	-55 ~ 150	°C

Note : T_c=25°C

TA78005AP ~ TA78024AP

EQUIVALENT CIRCUIT



ELECTRICAL CHARACTERISTICS ($V_{IN}=14V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Voltage	V_{OUT}	1	$T_j=25^{\circ}C$, $I_{OUT}=100mA$	7.7	8.0	8.3	V
Input Regulation	Reg·line	1	$T_j=25^{\circ}C$ $10.5V \leq V_{IN} \leq 25V$	-	6	160	mV
			$11V \leq V_{IN} \leq 17V$	-	2	80	
Load Regulation	Reg·load	1	$T_j=25^{\circ}C$ $5mA \leq I_{OUT} \leq 1.4A$	-	12	160	mV
			$250mA \leq I_{OUT} \leq 50mA$	-	4	80	
Output Voltage	V_{OUT}	1	$10.5V \leq V_{IN} \leq 23V$ $5.0mA \leq I_{OUT} \leq 1.0A$, $P_o \leq 15W$	7.6	-	8.4	V
Quiescent Current	I_B	1	$T_j=25^{\circ}C$, $I_{OUT}=5mA$	-	4.3	8.0	mA
Quiescent Current Change	ΔI_B	1	$10.5V \leq V_{IN} \leq 25V$	-	-	1.0	mA
Output Noise Voltage	V_{NO}	1	$T_a=25^{\circ}C$, $10Hz \leq f \leq 100kHz$ $I_{OUT}=50mA$	-	70	-	μV
Ripple Rejection	RR	1	$f=120Hz$, $11.5V \leq V_{IN} \leq 21.5V$ $I_{OUT}=50mA$, $T_j=25^{\circ}C$	58	74	-	dB
Dropout Voltage	V_D	1	$I_{OUT}=1.0A$, $T_j=25^{\circ}C$	-	2.0	-	V
Short Circuit Current Limit	I_{SC}	1	$T_j=25^{\circ}C$	-	1.1	-	A
Average Temperature Coefficient of Output Voltage	T_{CVO}	1	$I_{OUT}=5mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$	-	-1.0	-	mV/deg