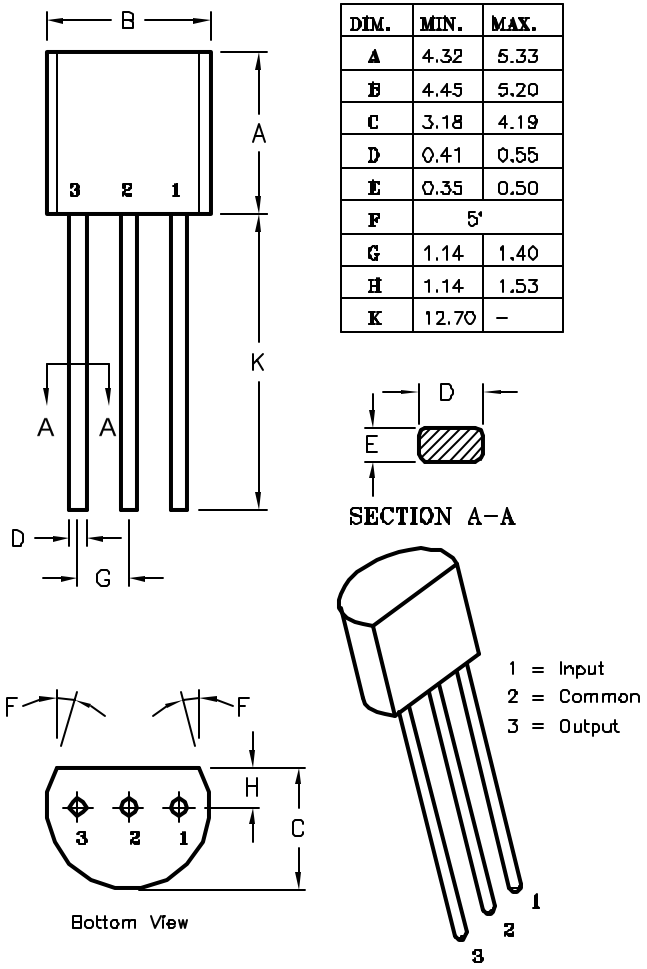
multicomp

SPC-F005.DWG

REVISIONS — DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1820	A	RELEASED	HO	3/17/05	J	04/04/08	JN	04/04/08

TO-92



DIM.	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	5°	
G	1.14	1.40
H	1.14	1.53
K	12.70	–

Description: The 78L18 is a positive 3-terminal voltage regulator in a TO-92 type package suitable for numerous applications requiring up to 100mA. This device features thermal shutdown and current limiting making the part remarkably rugged. In most applications, no external components are required for operation. The 78L18 is useful for on-card regulation or any other application where a regulated positive voltage at a modest current level is needed. This device offers a substantial advantage over the common resistor/zener diode approach.

Features:
- No External Components Required
- Internal Short-Circuit Current Limiting
- Internal Thermal Overload Protection

Absolute Maximum Ratings:
- Input Voltage, V_{IN} = 35V
- Internal Power Dissipation (Note 1), P_D = Internally Limited
- Operating Junction Temperature Range, T_{opr} = 0°C to +70°C
- Maximum Junction Temperature, T_J = +125°C
- Storage Temperature Range, T_{stg} = -55°C to +150°C
- Lead Temperature (During Soldering, 10sec.), T_L = +300°C

Electrical Characteristics: (0°OTO+125°C, V_{OUT}=18V, V_{IN}= 27V, I_O=40mA, C_{IN}=0.33µF, C_{OUT}=0.1µF, Note 2, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Output Voltage	V_O	T_J = +25°C	17.3	18	18.7	V
		1mA O I_O O 100mA, 20.7V O V_{IN} O 33V	17.1	18	18.9	V
Line Regulation	Reg_{line}	T_J = +25°C, 20.7V O V_{IN} O 33V	–	–	325	mV
Load Regulation	Reg_{load}	T_J = +25°C, 1mA O I_O O 100mA	–	–	170	mV
Quiescent Current	I_B	T_J = +125°C	–	2	6	mA
Quiescent Current Change	I_B	With line, 21V O VIN O 33V	–	–	1.5	mA
		With load, 1mA O I_O O 40mA	–	–	0.1	mA
Output Noise Voltage	V_N	T_J = +25°C, f = 10Hz to 10kHz	–	150	–	µV
Ripple Rejection	RR	23V O V_{IN} O 33V, f = 120Hz	33	48	–	dB
Drop Out Voltage	V_{DO}	T_J = +25°C, I_O = 40mA	–	1.7	–	V

Notes:
1- Thermal resistance, junction-to-ambient is +180°C/W when mounted with 0.40 inch leads on a P.C. board, and +160°C/W when mounted with 0.25 inch leads on a P.C. board.
2- To ensure constant junction temperature, low duty cycle pulse testing is used.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
HISHAM ODISH	3/17/05
CHECKED BY:	DATE:
Jason Nash	04/04/08
APPROVED BY:	DATE:
Jason Nash	04/04/08

DRAWING TITLE: Voltage Regulator, Bipolar, Plastic, TO-92, Positive

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	78L18	35C0952.DWG	A

SCALE: NTS | U.O.M.: MILLIMETERS | SHEET: 1 OF 1