

Dimensions (mm)

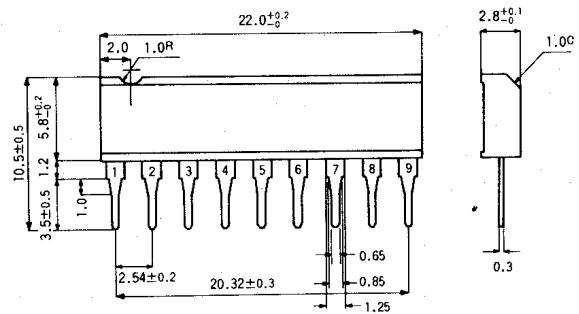


Fig. 1

The BA335 is a monolithic integrated circuit consisting of an audio small signal amplifier hysteresis converter, and driver in a single package. It is housed in a 9-pin SIP package and is suitable for use as END detectors and tape program detection for tape recorders.

Features

1. A built-in comparator is used which provides stable hysteresis with respect to supply voltage temperature variations.
2. A transistor and diode output is provided which is capable of driving inductive loads up to a maximum of 600mA.
3. Time delay may be freely adjusted by means of an external RC circuit.

Applications

1. Tape END detection
2. Tape program detection

Circuit Diagram

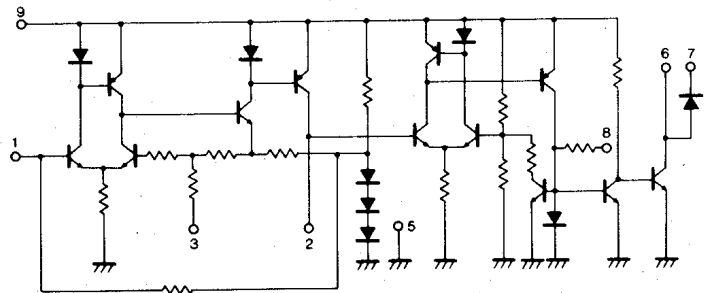


Fig. 2

Absolute Maximum Ratings (T_a = 25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	15	V
Power dissipation	P _d	540*	mW
Operating temperature	T _{opr}	-25~+75	°C
Storage temperature	T _{stg}	-55~+125	°C

* Derating is done at 5.4mW/°C for operation above T_a = 25°C.

Electrical Characteristics (T_a = 25°C, V_{CC} = 9.0V)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions	Test circuit
Supply current	I _{CC}	—	6	10	mA		Fig. 7
Output transistor leakage current	I _{L1}	—	—	100	μA		Fig. 7
Output diode leakage current	I _{L2}	—	—	100	μA		Fig. 7
Output transistor saturation voltage	V _{CE (sat)}	—	1.5	2.0	V	I _C = 600mA	Fig. 7
Output diode forward voltage drop	V _F	—	1.5	2.0	V	I _F = 600mA	Fig. 7
Input-referred off-state output level	V _{IN}	-44	-50	-60	dBm	f = 1kHz	Fig. 7
On-state comparator level	V _{TH1}	3.0	3.5	4.0	V		Fig. 7
Off-state comparator level	V _{TH2}	1.8	2.2	2.6	V		Fig. 7
Pin 8 high level	V _{P8}	0.45	0.55	—	V		Fig. 7