TRANSISTOR ARRAY
μPA53C

LED, LAMP DRIVER
NPN SILICON EPITAXIAL DARLINGTON TRANSISTOR ARRAY

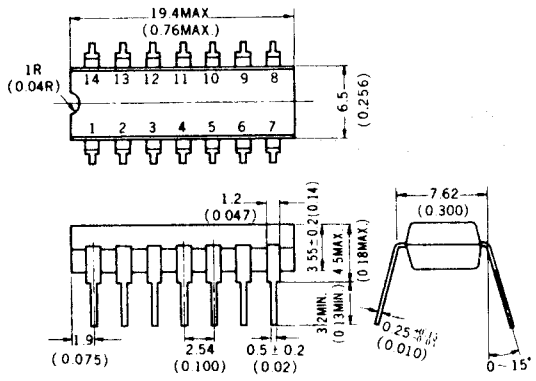
DESCRIPTION

The μPA53C is a monolithic array of five darlington transistors.

Applications are printer hummer driver and LED display driver with MOS output signal.

PACKAGE DIMENSIONS

in millimeters (inches)



FEATURES

- High DC Current Gain
- High Output Drive Current
- Package is 14pin PLASTIC DIP.

ABSOLUTE MAXIMUM RATINGS

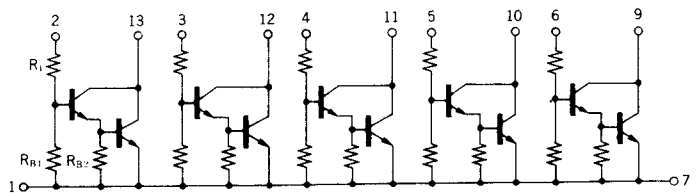
Maximum Voltages and Currents (Ta = 25°C)			
Collector to Base Voltage ($R_{BE}=\infty$)	V_{CBO}	30	V
Collector to Emitter Voltage (Open Base)	V_{CEO}	30	V
Input Voltage	V_{IN}	30	V
Continuous Collector Current	$I_{C(DC)}$	0.4	A/unit
Peak Collector Current	I_C*	2.0	A/package
Maximum Power Dissipation			
Total Power Dissipation	P_T*	1.2	W/package
Maximum Temperature			
Storage Temperature	T_{stg}	-40 to +125	°C
Operating Temperature	Topt	-25 to + 75	°C

*PW = 10ms, duty cycle ≦ 10%

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

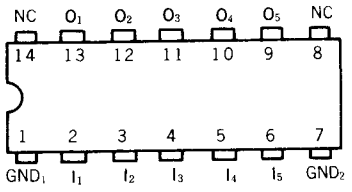
CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Circuit Current	I_L		0.5	100	μA	V_{CE}=20V, V_{IN}=0
DC Current Gain	h_{FE}	2000	3200			V_{CE}=5.0V, I_C=200mA
Collector Saturation Voltage	$V_{CE(sat)1}$		0.9	1.3	V	I_C=100mA, V_{IN}=5.0V
Collector Saturation Voltage	$V_{CE(sat)2}$		1.3	2.2	V	I_C=400mA, V_{IN}=20V

EQUIVALENT CIRCUIT



R_1 20kΩ
R_{B_1} 20kΩ
R_{B_2} 2kΩ

CONNECTION DIAGRAM (Top View)



I : Input(Base)
O : Output(Collector)
GND(Common Emitter)