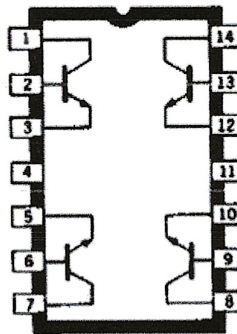


SERIES TPQ

QUAD TRANSISTOR ARRAYS

Series TPQ quad transistor arrays are general-purpose silicon transistor arrays consisting of four independent devices.

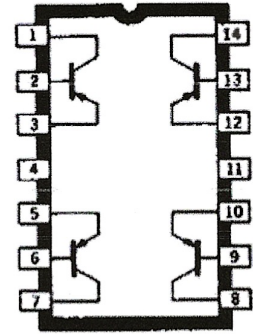
All of these devices are furnished in a 14-pin dual in-line plastic package. The molded package is identical to that used with most consumer integrated circuits and offers superior mechanical protection during insertion into printed wiring boards.



Dwg No A-10,050A

TPQ2222A
TPQ3904

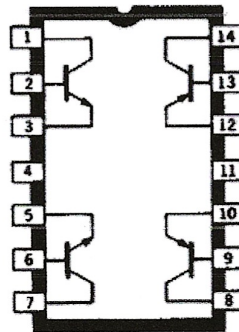
TPQ6427
TPQA06



Dwg. No A-10,051A

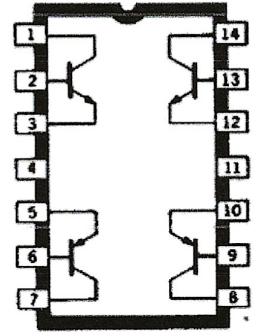
TPQ2907A
TPQ3906
TPQA55

TPQ5401
TPQA56



Dwg No A-10,052A

TPQ6002



Dwg No A-10,053A

TPQ6502
TPQ6700

ABSOLUTE MAXIMUM RATINGS

Power Dissipation, P_D
 (Each Transistor) 500 mW
 (Total Package) 2.0 W*
 Operating Temperature Range,
 T_A -55°C to +150°C
 Storage Temperature Range,
 T_S -65°C to +150°C

* Derate at the rate of 16 mW/°C above
 $T_A = +25°C$

SERIES TPQ QUAD TRANSISTOR ARRAYS

ELECTRICAL CHARACTERISTICS at $T_A = +25^\circ\text{C}$

Part Number	$V_{(BR)CBO}$ (V)	$V_{(BR)CEO}$ (V)	$V_{(BR)EBO}$ (V)	I_{CBO}		DC Current Gain			Saturation Voltage			f_T		C_{ob} Max. (pF)	Similar Discrete Devices
				Max @ V_{CB} (nA)	V (V)	h_{FE} Min.	Conditions		V_{CE} Max. (V)	V_{BE} Max. (V)	@ I_C (mA)	Min. (MHz)	@ I_C (mA)		
							I_C (mA)	V_{CE} (V)							

Four NPN Devices

TPQ2222A	75	40	6.0	50	50	75	10	10	0.40	1.30	150	200	20	8.0	2N2222A
						100	150	10	1.60	2.60	300				
						30	300	10							
TPQ3904	60	40	6.0	50	40	30	0.1	1.0	0.20	0.85	10	250	10	4.0	2N3904
						50	1.0	1.0							
						75	10	1.0							
TPQ6427	50	40	12	100	30	5k	10	5.0	1.5	2.0	100	125	10	8.0	2N6427
						10k	100	5.0							
TPQA06	80	80	4.0	100	(Note 3)	50	10	1.0	0.25	—	100	—	—	10	MPSA06
						50	100	2.0							

NOTE: 1. Base-emitter voltage shown is $V_{BE(ON)}$ at indicated I_C , $V_{CE} = 5.0$ V.

2. I_{CES} at $V_{CE} = 50$ V, $V_{BE} = 0$

3. I_{CES} at $V_{CE} = 60$ V, $V_{BE} = 0$.

SERIES TPQ

QUAD TRANSISTOR ARRAYS

ELECTRICAL CHARACTERISTICS at $T_A = +25^\circ\text{C}$

Part Number	$V_{(BR)CBO}$ (V)	$V_{(BR)CEO}$ (V)	$V_{(BR)EBO}$ (V)	I_{CBO}		DC Current Gain			Saturation Voltage			f_T		C_{ob} Max. (pF)	Similar Discrete Devices
				Max @ V_{CB} (nA)	@ V_{CB} (V)	h_{FE} Min.	Conditions		V_{CE} Max. (V)	V_{BE} Max. (V)	@ I_C (mA)	Min. (MHz)	@ I_C (mA)		
							I_C (mA)	V_{CE} (V)							

Four PNP Devices

TPQ2907A	-60	-60	-5.0	50	-30	75	10	-10	-0.40	-1.30	150	200	50	8.0	2N2907A
						100	150	-10	-1.60	-2.60	300				
						50	300	-10							
TPQ3906	-40	-40	-5.0	50	-30	40	0.1	-1.0	-0.25	-0.85	10	200	10	4.5	2N3906
						60	1.0	-1.0							
						75	10	-1.0							
TPQ5401	-160	-150	-5.0	100	(Note 4)	50	1.0	-5.0	-0.20	1.00	10	100	10	6.0	2N5401
						60	10	-5.0	-0.50	1.00	50				
						50	50	-5.0							
TPQA55	-60	-60	-4.0	100	(Note 5)	50	10	-1.0	-0.25	—	100	—	—	15	MPSA55
						50	100	-2.0							
TPQA56	-80	-80	-4.0	100	(Note 6)	50	10	-1.0	-0.25	—	100	—	—	15	MPSA56
						50	100	-2.0							

Two NPN/Two PNP Devices (Note 7)

TPQ6002	60	30	5.0	30	50	50	1.0	10	0.40	1.30	150	200	50	8.0	2N2222 and 2N2907
						75	10	10	1.40	2.00	300				
						100	150	10							
						30	300	10							
TPQ6502	60	30	5.0	30	50	50	1.0	10	0.40	1.30	150	200	50	8.0	2N2222 and 2N2907
						75	10	10	1.40	2.00	300				
						100	150	10							
						30	300	10							
TPQ6700	40	40	5.0	50	30	30	0.1	1.0	0.25	0.90	10	200	10	4.5	2N3904 and 2N3906
						50	1.0	1.0							
						70	10	1.0							

NOTE: 4. I_{CES} at $V_{CE} = 120\text{ V}$, $V_{BE} = 0$.

5. I_{CES} at $V_{CE} = 50\text{ V}$, $V_{BE} = 0$.

6. I_{CES} at $V_{CE} = 60\text{ V}$, $V_{BE} = 0$.

7. Complimentary pairs. Polarity shown is for NPN devices.