NPN POWER TRANSISTOR ARRAY

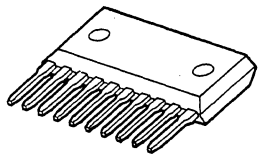
D76FY2T

80 VOLTS
2 AMP, 4.0 WATTS

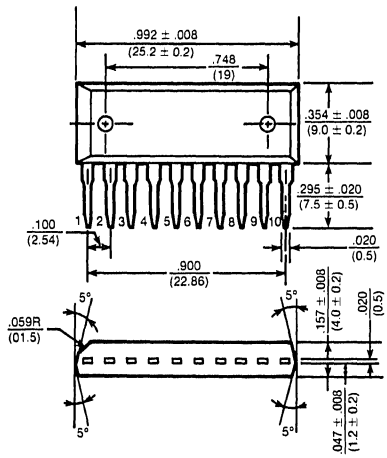
Designed for switching applications, solenoid drive applications.

Features:

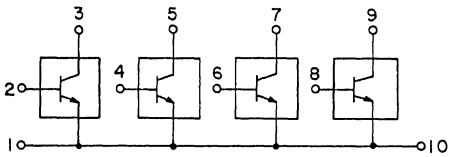
- Epoxy single-inline package (10 pin)
- High DC current gain: h_{FE} = 500 (Min.) (I_C = 400mA)
- Low saturation voltage:
  $V_{CE(sat)}$ = 0.5V (Max.) (I_C = 300mA)



CASE STYLE SIP-10 PIN
DIMENSIONS ARE IN INCHES AND (MILLIMETERS)



ARRAY CONFIGURATION



maximum ratings (T_A = 25°C) (unless otherwise specified)

RATING	SYMBOL	D76FY2T	UNITS
Collector-Emitter Voltage	V_{CEO}	80	Volts
Collector-Base Voltage	V_{CBO}	80	Volts
Emitter Base Voltage	V_{EBO}	7	Volts
Collector Current — Continuous	I_C	2	A
Base Current — Continuous	I_B	0.5	A
Collector Power Dissipation	P_D	4.0	Watts
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +150	°C

thermal characteristics

Thermal Resistance, Junction to Ambient	$\Sigma R_{\theta JA}$	31.3	°C/W
Maximum Lead Temperature for Soldering Purpose: ⅛" from Case for 5 Seconds	T_L	260	°C

electrical characteristics (T_A = 25°C) (unless otherwise specified)

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT
off characteristics					
Collector-Emitter Breakdown Voltage (I_C = 10mA, I_B = 0)	$V_{BR(CEO)}$	80	—	—	Volts
Collector Cutoff Current (V_{CB} = 80V, I_E = 0)	I_{CBO}	—	—	1	μA
Emitter Cutoff Current (V_{EB} = 7V, I_C = 0)	I_{EBO}	—	—	1	μA
on characteristics					
DC Current Gain (I_C = 400mA, V_{CE} = 1V)	h_{FE}	500	—	—	—
Collector-Emitter Saturation Voltage (I_C = 300mA, I_B = 1mA)	$V_{CE(sat)}$	—	0.3	0.5	Volts
Base-Emitter Saturation Voltage (I_C = 300mA, I_B = 1mA)	$V_{BE(sat)}$	—	—	1.1	Volts
switching characteristics					
Turn-on Time	V_{CC} = 30V I_{B1} = -I_{B2} = 1mA Duty Cycle ≦ 1%	t_{on}	—	2.0	—	μs
Storage Time		t_{stg}	—	5.0	—	
Fall Time		t_f	—	2.0	—	

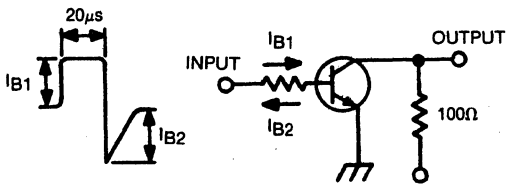


FIG. 1 SWITCHING TIME TEST CIRCUIT

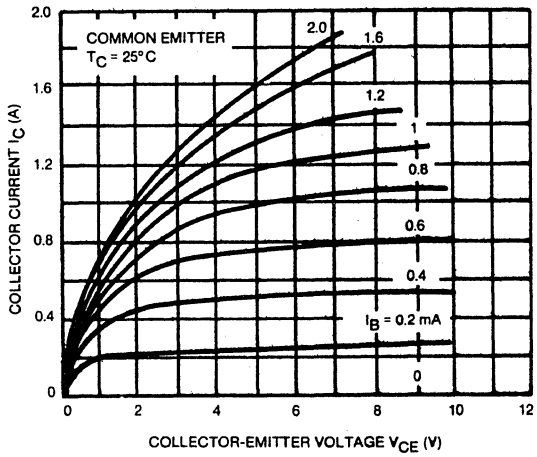


FIG. 2 I_C - V_{CE}

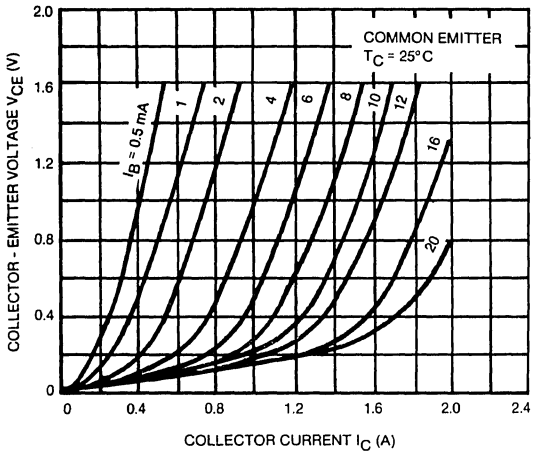


FIG. 3 V_{CE} - I_C

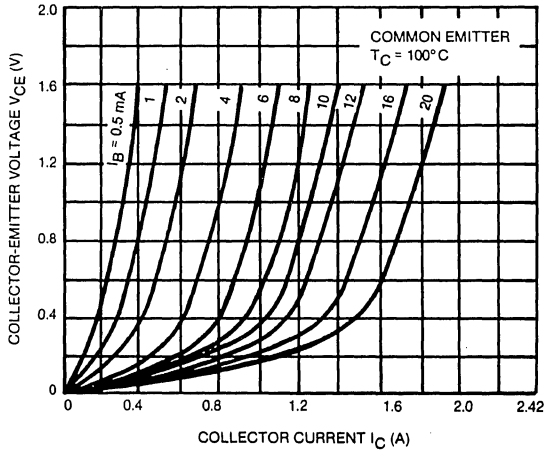


FIG. 4 V_{CE} - I_C

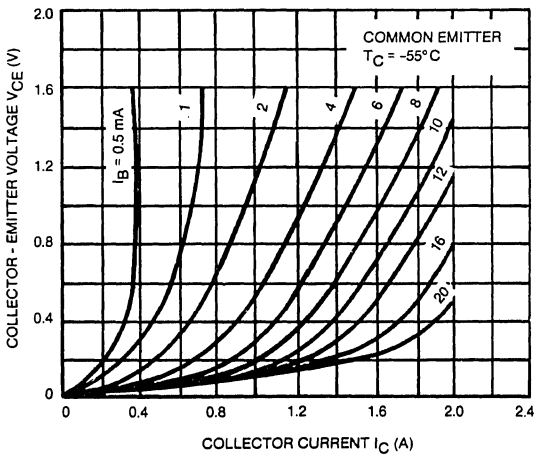


FIG. 5 V_{CE} - I_C

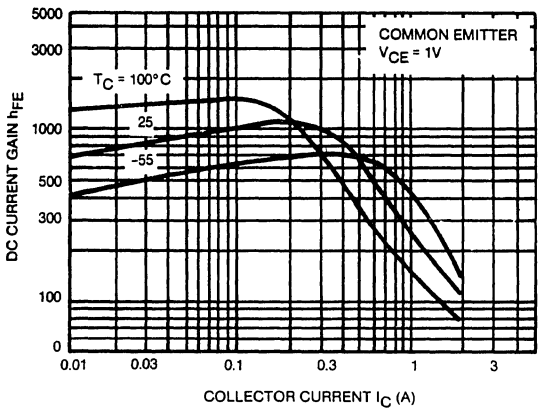


FIG. 6 h_{FE} - I_C

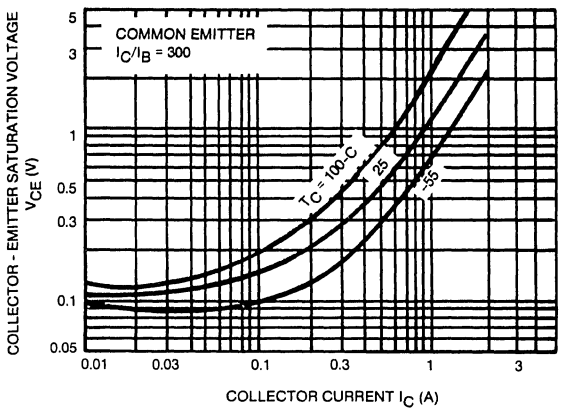


FIG. 7 $V_{CE(sat)}$ - I_C

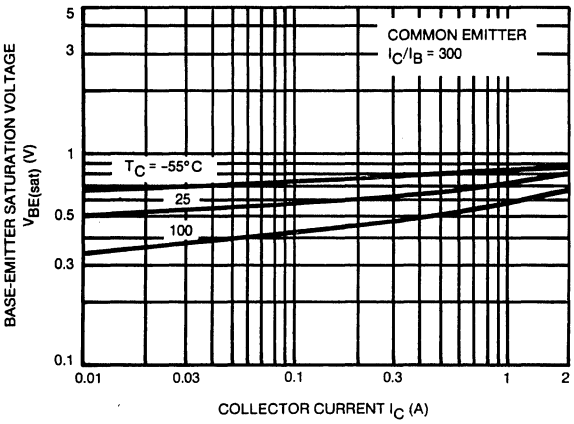


FIG. 8 $V_{BE(sat)}$ - I_C

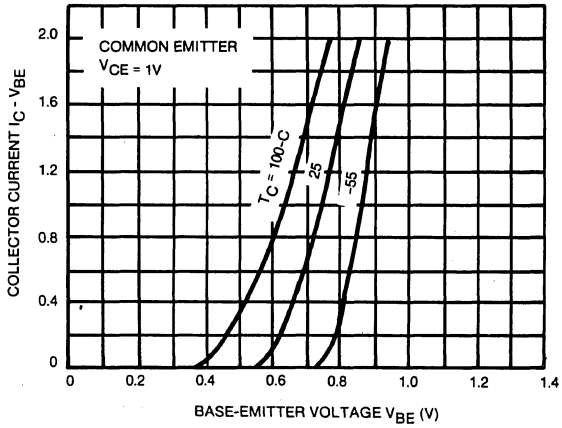


FIG. 9 I_C - V_{BE}