

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS) (DARLINGTON)

2SC982TM

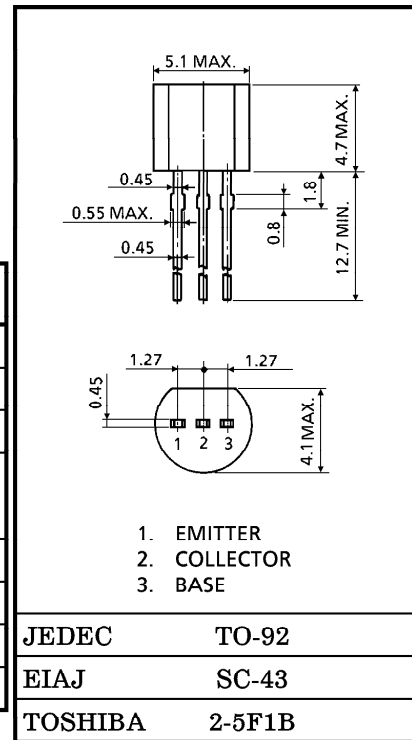
PRINTER DRIVE, CORE DRIVE AND LED DRIVE APPLICATIONS
 LOW FREQUENCY AMPLIFIER APPLICATIONS

Unit in mm

- High DC Current Gain : $h_{FE(1)} = 5000$ (Min.) ($I_C = 10\text{mA}$)
 : $h_{FE(2)} = 10000$ (Min.) ($I_C = 100\text{mA}$)

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

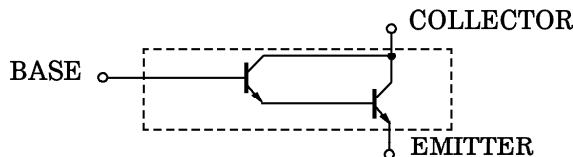
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	40	V
Collector-Emitter Voltage		V_{CEO}	40	V
Emitter-Base Voltage		V_{EBO}	10	V
Collector Current	DC	I_C	300	mA
	Pulsed (Note)	I_{CP}	500	
Base Current		I_B	10	mA
Collector Power Dissipation		P_C	400	mW
Junction Temperature		T_j	125	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55~125	$^\circ\text{C}$



Note : Pulse Width $\leq 10\text{ms}$, Duty Cycle $\leq 10\%$

Weight : 0.21g

EQUIVALENT CIRCUIT

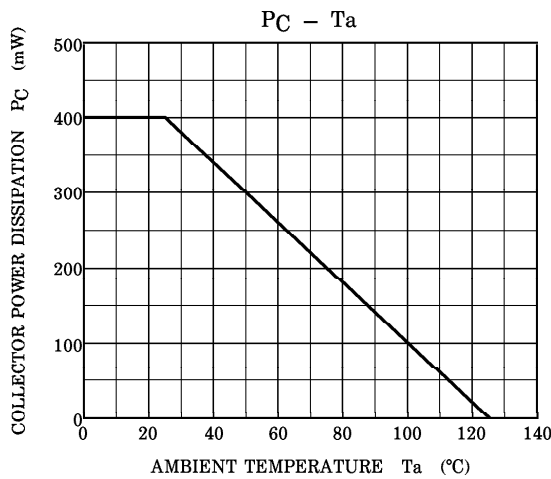
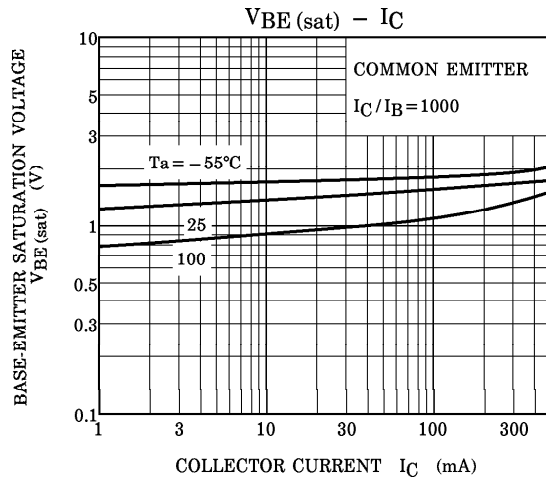
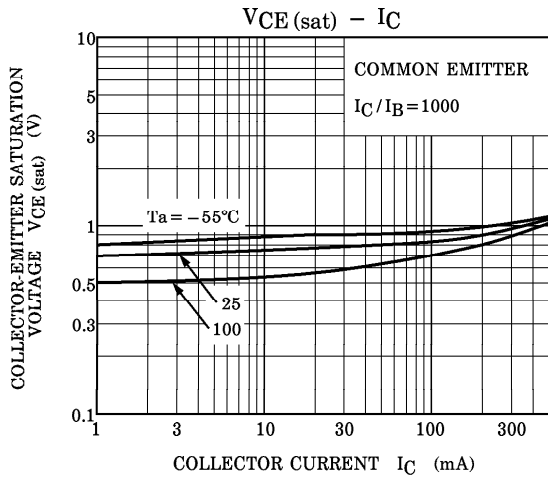
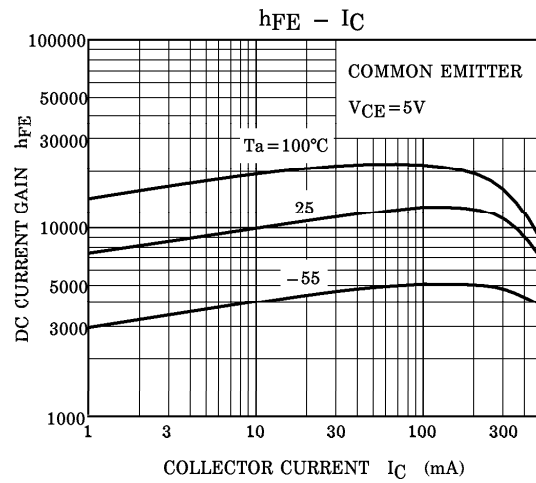
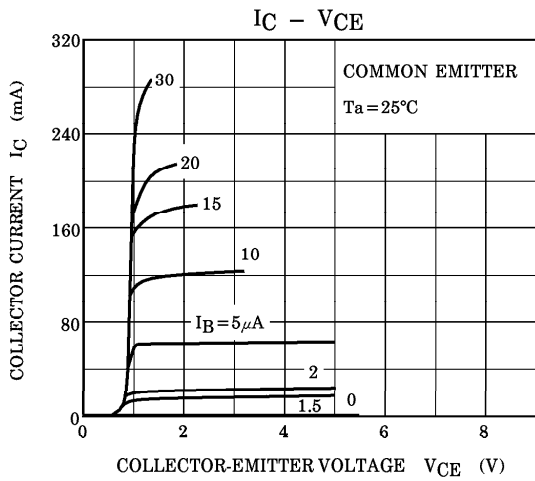


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CB0}	$V_{CB} = 40\text{V}, I_E = 0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 8\text{V}, I_C = 0$	—	—	0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5\text{V}, I_C = 10\text{mA}$	5000	—	—	
	$h_{FE(2)}$	$V_{CE} = 2\text{V}, I_C = 100\text{mA}$	10000	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 300\text{mA}, I_B = 0.3\text{mA}$	—	0.9	1.3	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 2\text{V}, I_C = 100\text{mA}$	—	1.25	1.6	V

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