

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SD1294

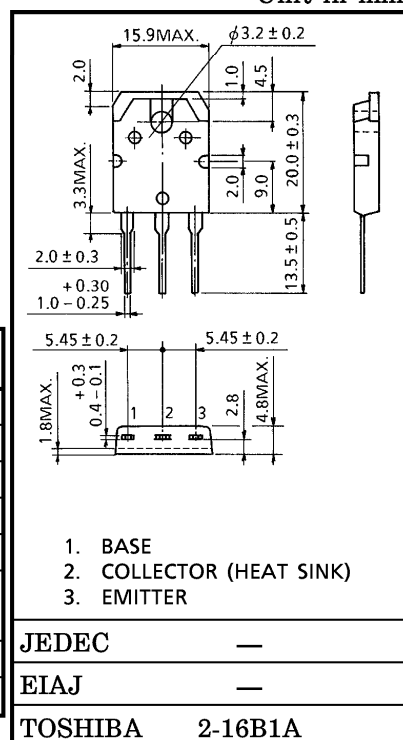
POWER REGULATOR FOR LINE OPERATED TV

Unit in mm

- Excellent Wide Safe Operating Area (80 W·s at $T_c = 25^\circ\text{C}$)
- Included Avalanche Diode : $V_Z = 60 \pm 15 \text{ V}$
- High DC Current Gain : $h_{FE} = 2000 \sim 20000$
- Darlington Connected Type.

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

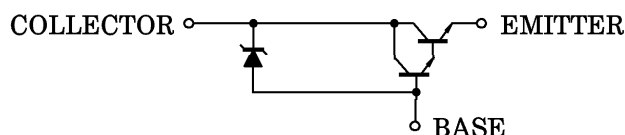
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	60 ± 15	V
Collector-Emitter Voltage		V_{CEO}	60 ± 15	V
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current	DC	I_C	5	A
	Pulse	I_{CP}	20	A
Collector Power Dissipation ($T_c = 25^\circ\text{C}$)		P_C	80	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	$-55 \sim 150$	$^\circ\text{C}$



Weight : 4.6 g

Mounting Kit No. AC73

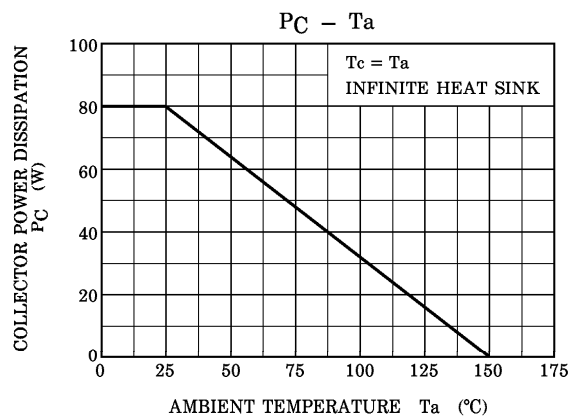
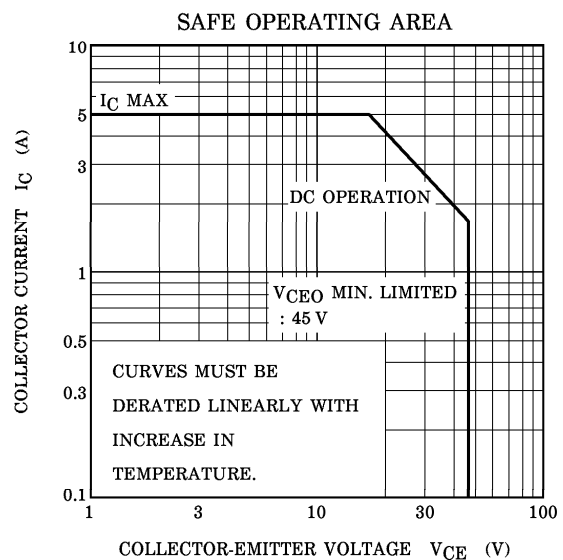
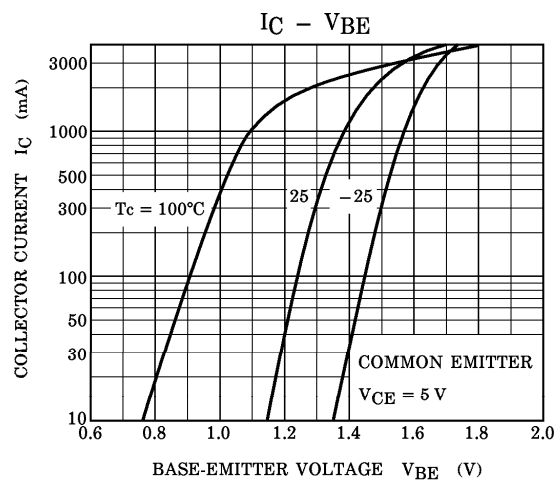
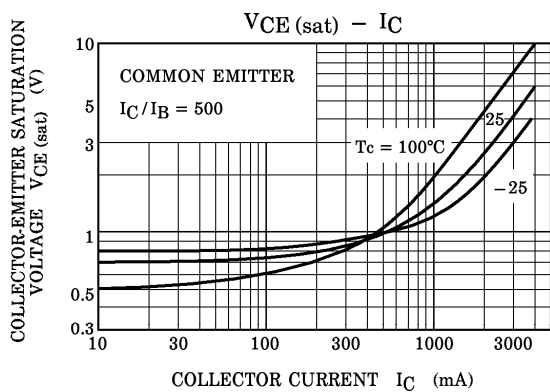
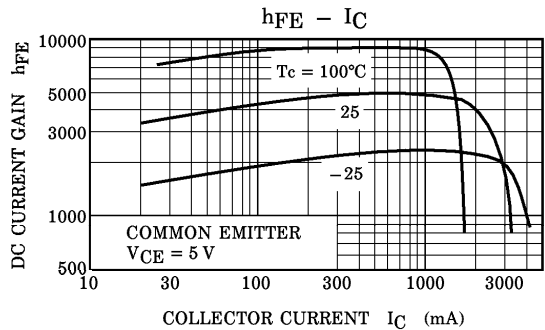
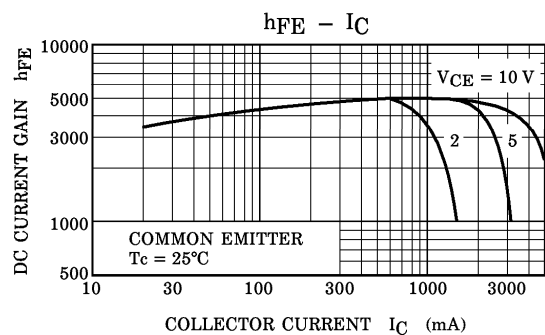
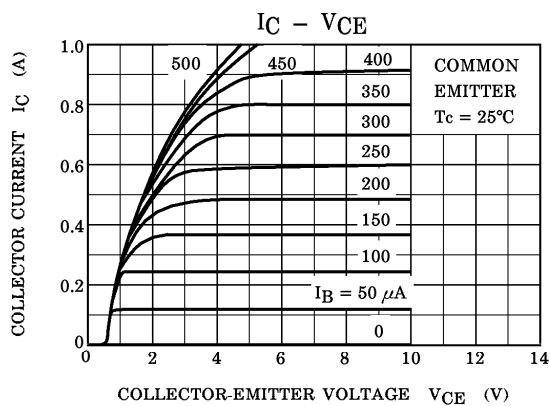
EQUIVALENT CIRCUIT

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100 \text{ mA}, I_E = 0$	45	60	75	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100 \text{ mA}, I_B = 0$	45	60	75	V
Collector Cut-off Current	I_{EBO}	$V_{EB} = 6 \text{ V}, I_C = 0$	—	—	100	μA
DC Current Gain	h_{FE}	$V_{CE} = 5 \text{ V}, I_C = 500 \text{ mA}$	2000	—	20000	
Collector-Emitter Saturation Voltage	$V_{CE(sat)} (1)$	$I_C = 500 \text{ mA}, I_B = 1 \text{ mA}$	—	—	1.5	V
	$V_{CE(sat)} (2)$	$I_C = 1.0 \text{ A}, I_B = 1 \text{ mA}$	—	—	2.5	
Base-Emitter Voltage	V_{BE}	$V_{CE} = 5 \text{ V}, I_C = 500 \text{ mA}$	—	—	1.8	V
Allowable Energy	E_T	Application Circuit	80	—	—	W·s

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APPLICATION CIRCUIT

