

TOSHIBA TRANSISTOR SILICON NPN DOUBLE DIFFUSED TYPE (PCT PROCESS)

2SD1092

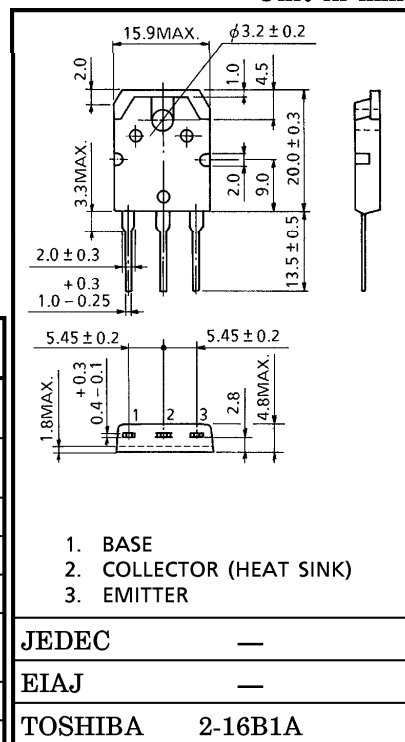
POWER REGULATOR FOR LINE OPERATED TV.

Unit in mm

- Excellent Wide Safe Operating Area. (80W·s at Tc=25°C)
- Included Avalanche Diode : V_Z=55^{+15V}_{-10V}
- High DC Current Gain : h_{FE}=500 (Min.) (Tc=25°C)
- High Collector Power Dissipation Capability : 80W at 25°C Case Temperature

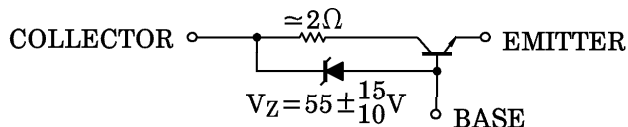
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	55 ⁺¹⁵ ₋₁₀	V
Collector-Emitter Voltage	V _{CE0}	55 ⁺¹⁵ ₋₁₀	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current	DC	I _C	4 A
	Pulse	I _{CP}	20 A
Collector Power Dissipation (Tc=25°C)	P _C	80	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C



Weight : 4.6g

EQUIVALENT CIRCUIT

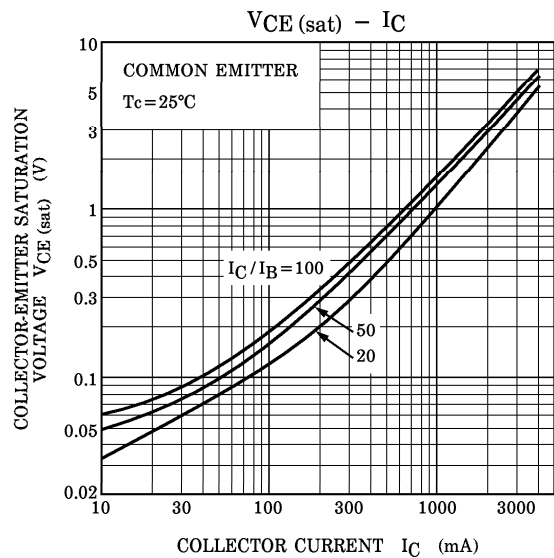
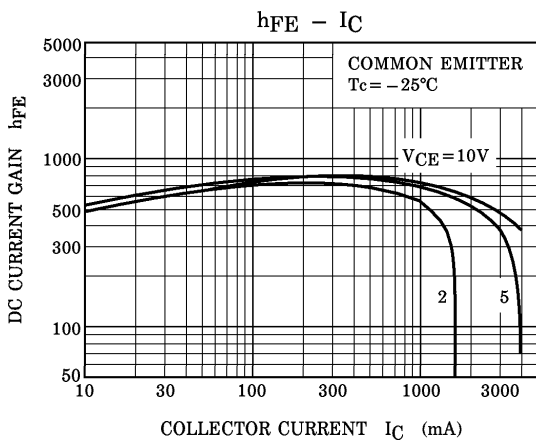
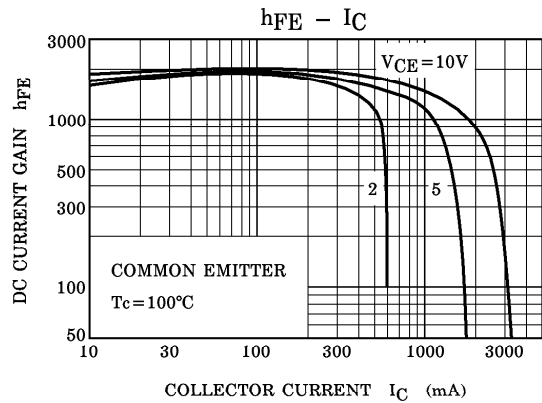
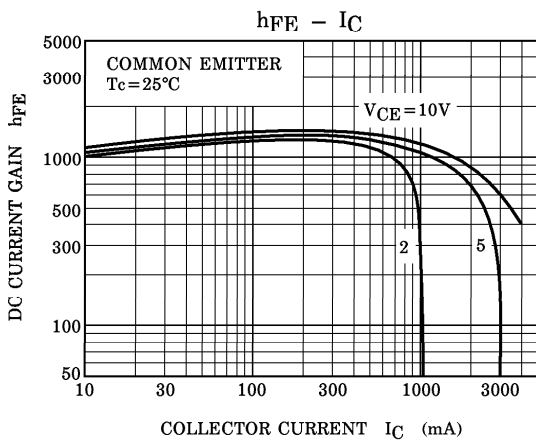
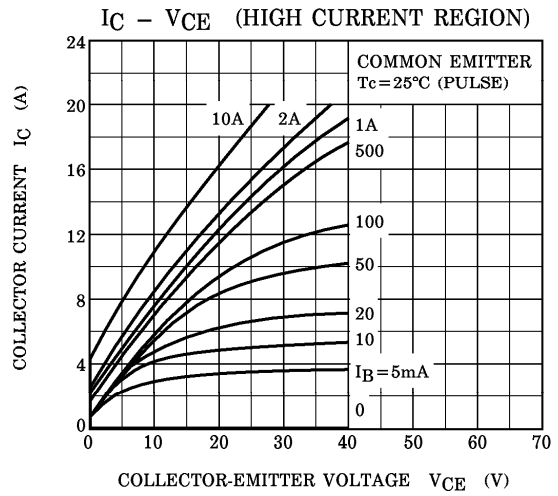
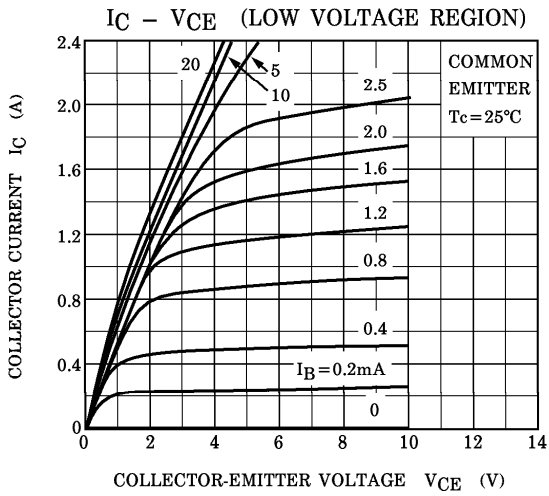


ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	V (BR) CBO	I _C = 10mA, I _E = 0	45	55	70	V
Collector-Emitter Breakdown Voltage	V (BR) CEO	I _C = 100mA, I _B = 0	45	55	70	V
Emitter Cut-off Current	I _{EB0}	V _{EB} = 5V, I _C = 0	—	—	10	μA
DC Current Gain	h _{FE}	V _{CE} = 5V, I _C = 500mA	500	1000	2500	
Collector-Emitter Saturation Voltage	V _{CE (sat) (1)}	I _C = 500mA, I _B = 2mA	—	—	2.0	V
Collector-Emitter Saturation Voltage	V _{CE (sat) (2)}	I _C = 1.0A, I _B = 20mA	—	—	3.0	V
Base-Emitter Voltage	V _{BE}	V _{CE} = 5V, I _C = 500mA	0.50	0.65	0.80	V
Allowable Energy (Tc=25°C)	E _T	Application circuit	80	—	—	W·s

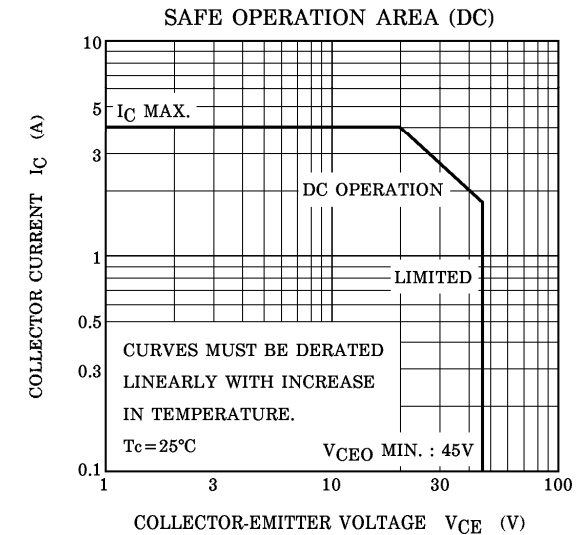
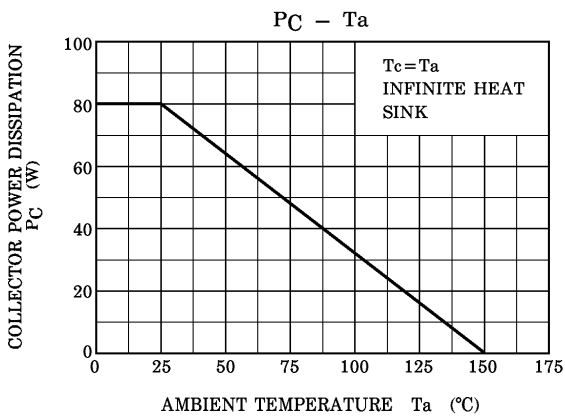
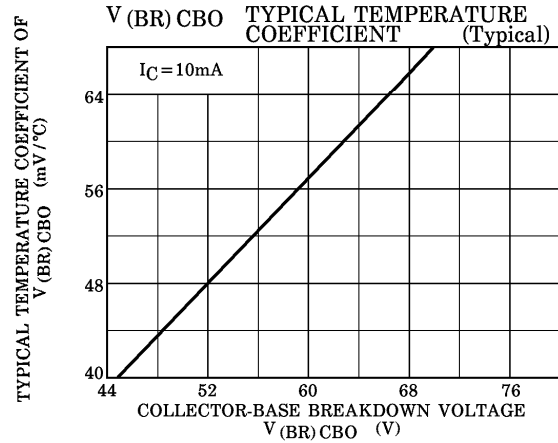
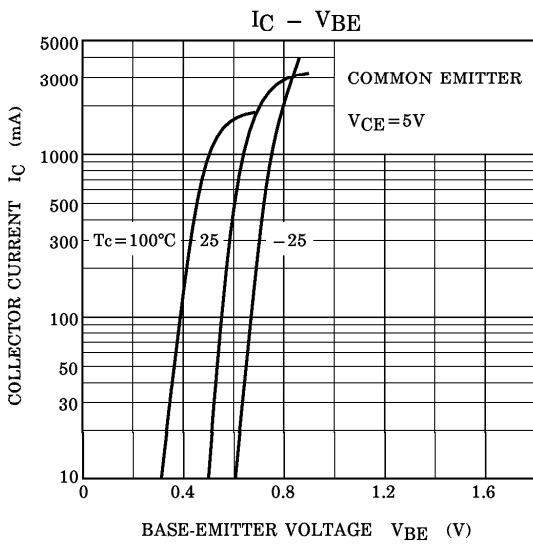
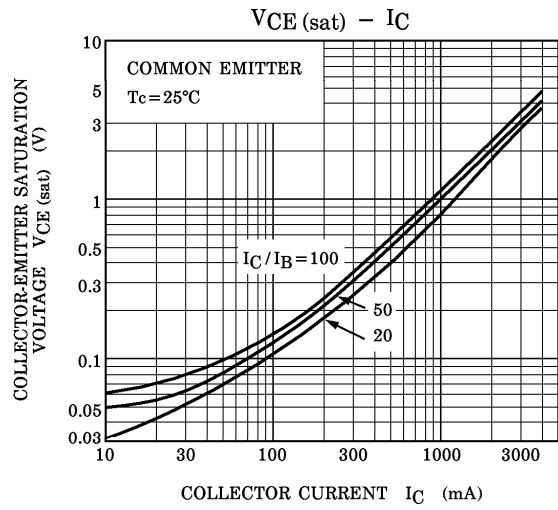
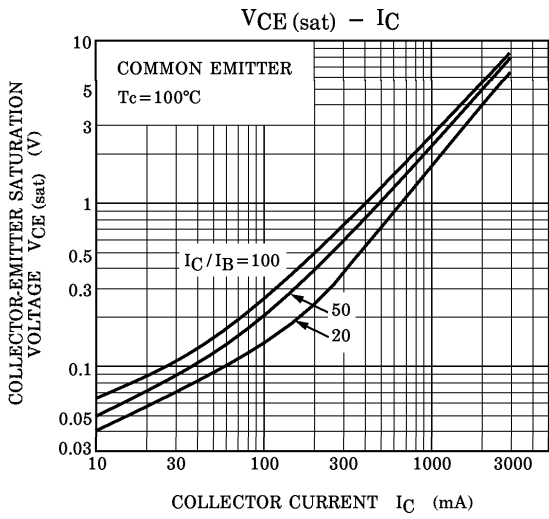
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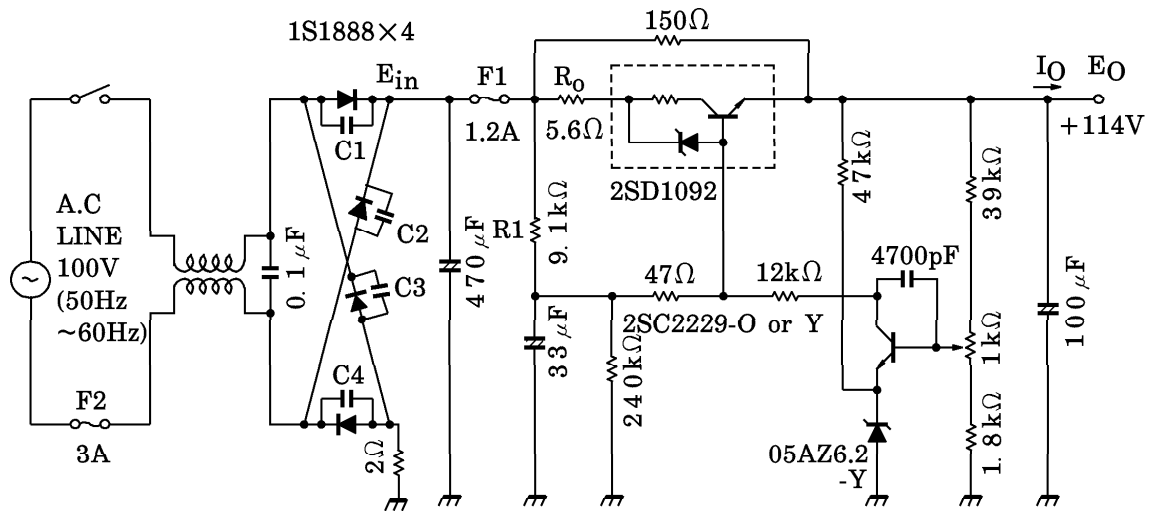


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APPLICATION CIRCUIT



C1, C2, C3, C4 : 0.0047 μF

