

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

# 2SD1294

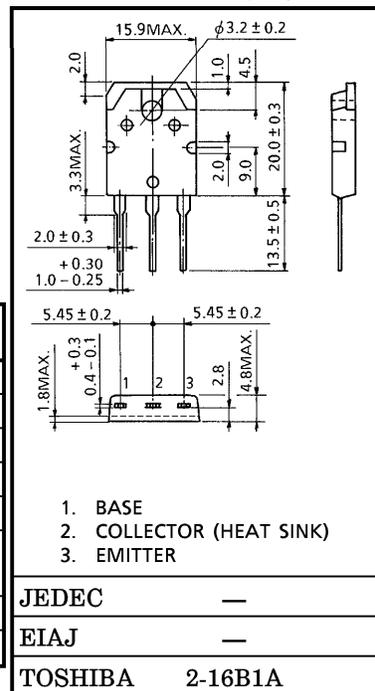
POWER REGULATOR FOR LINE OPERATED TV

Unit in mm

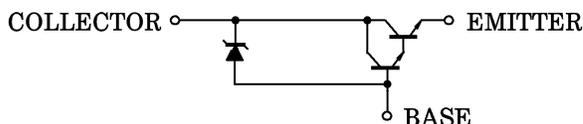
- Excellent Wide Safe Operating Area (80 W·s at  $T_c = 25^\circ\text{C}$ )
- Included Avalanche Diode :  $V_Z = 60 \pm 15 \text{ V}$
- High DC Current Gain :  $h_{FE} = 2000 \sim 20000$
- Darlington Connected Type.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	$60 \pm 15$	V
Collector-Emitter Voltage	$V_{CEO}$	$60 \pm 15$	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	$T_{stg}$	$-55 \sim 150$	$^\circ\text{C}$



EQUIVALENT CIRCUIT



Weight : 4.6 g

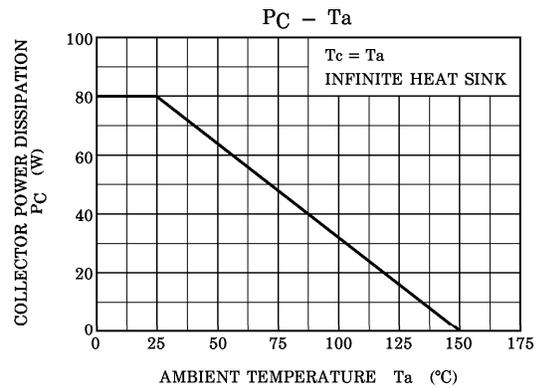
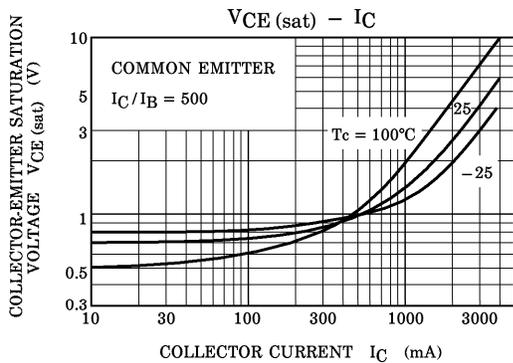
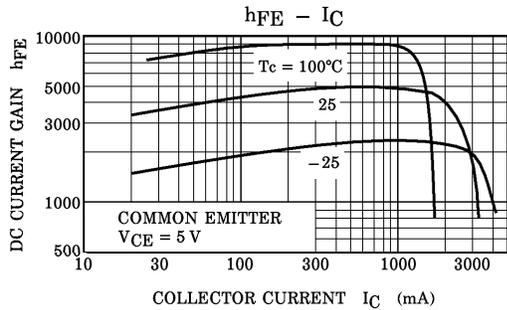
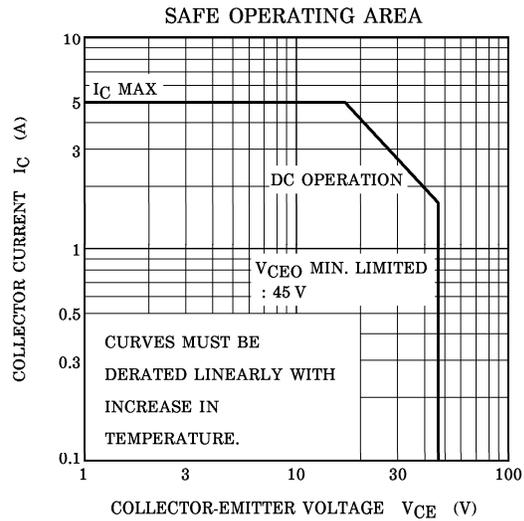
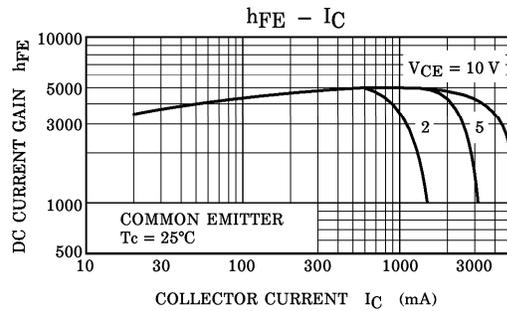
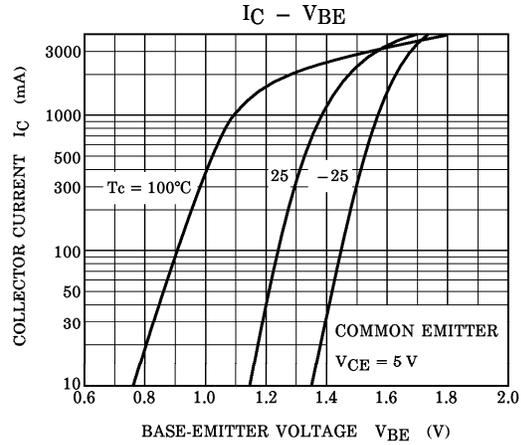
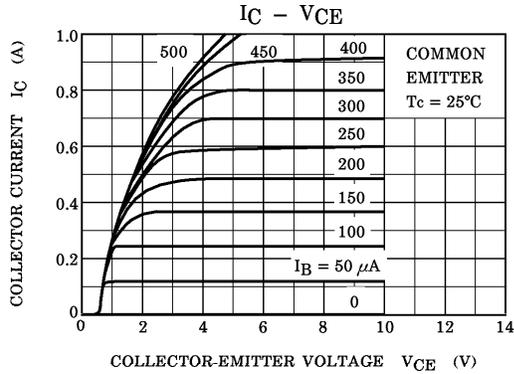
Mounting Kit No. AC73

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

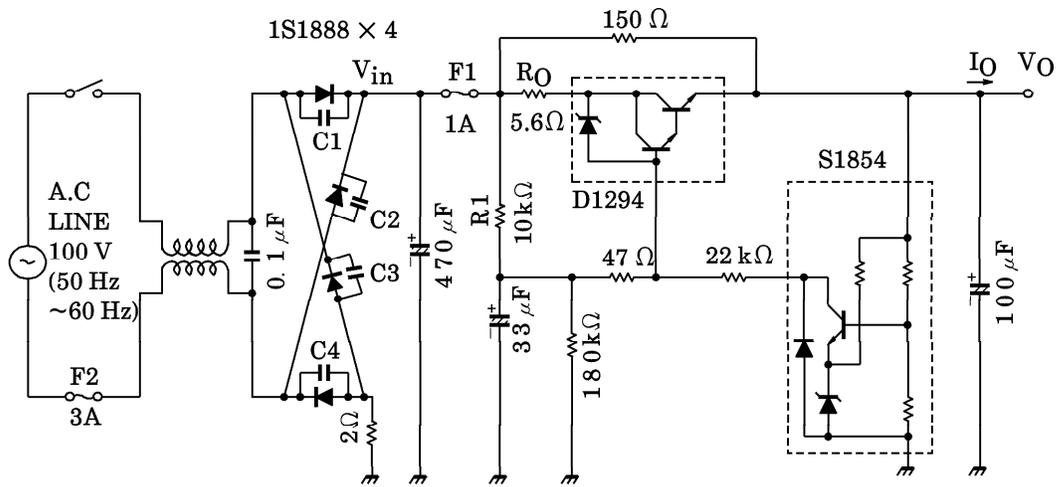
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100 \text{ mA}, I_E = 0$	45	60	75	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100 \text{ mA}, I_B = 0$	45	60	75	V
Collector Cut-off Current	$I_{EBO}$	$V_{EB} = 6 \text{ V}, I_C = 0$	—	—	100	$\mu\text{A}$
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



C1, C2, C3, C4 : 0.0047 μF

