

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE (PCT PROCESS)

# 2SA1432

HIGH VOLTAGE CONTROL APPLICATIONS

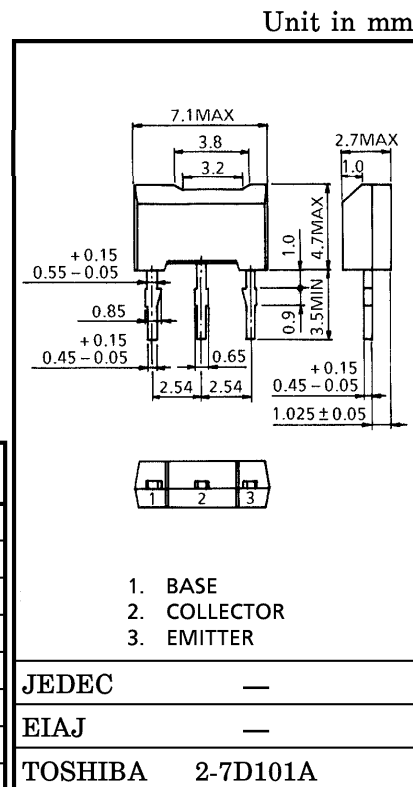
PLASMA DISPLAY, NIXIE TUBE DRIVER APPLICATIONS

CATHODE RAY TUBE BRIGHTNESS CONTROL APPLICATIONS

- High Voltage :  $V_{CBO} = -300\text{ V}$ ,  $V_{CEO} = -300\text{ V}$
- Low Saturation Voltage :  $V_{CE(sat)} = -0.5\text{ V (Max.)}$
- Small Collector Output Capacitance :  $C_{ob} = 6\text{ pF (Typ.)}$
- Complementary to 2SC3672

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-300	V
Collector-Emitter Voltage	$V_{CEO}$	-300	V
Emitter-Base Voltage	$V_{EBO}$	-8	V
Collector Current	$I_C$	-100	mA
Base Current	$I_B$	-20	mA
Collector Power Dissipation	$P_C$	1000	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ\text{C}$



Weight : 0.2 g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -300\text{ V}$ , $I_E = 0$	—	—	-0.1	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -8\text{ V}$ , $I_C = 0$	—	—	-0.1	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{ mA}$ , $I_E = 0$	-300	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{ mA}$ , $I_B = 0$	-300	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -10\text{ V}$ , $I_C = -20\text{ mA}$	30	—	150	
	$h_{FE(2)}$	$V_{CE} = -10\text{ V}$ , $I_C = -1\text{ mA}$	20	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -20\text{ mA}$ , $I_B = -2\text{ mA}$	—	—	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -20\text{ mA}$ , $I_B = -2\text{ mA}$	—	—	-1.2	V
Transition Frequency	$f_T$	$V_{CE} = -10\text{ V}$ , $I_C = -20\text{ mA}$	40	60	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -20\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$	—	6	8	pF

(Note) :  $h_{FE(1)}$  Classification R : 30~90, O : 50~150

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