

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SA1091

HIGH VOLTAGE CONTROL APPLICATIONS

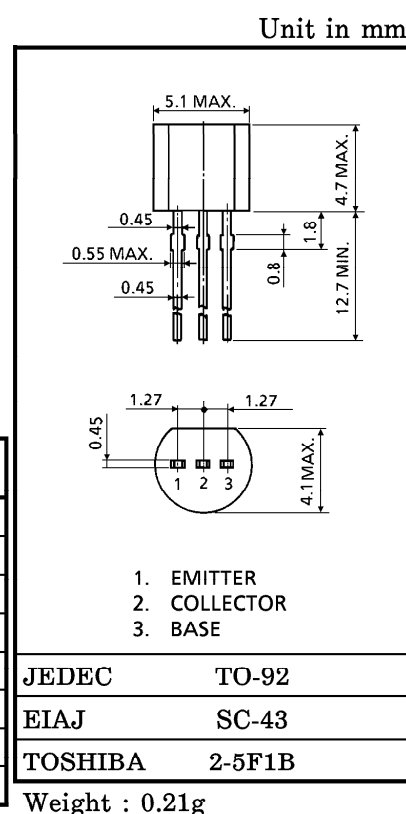
PLASMA DISPLAY, NIXIE TUBE DRIVER APPLICATIONS

CATHODE RAY TUBE BRIGHTNESS CONTROL APPLICATIONS

- High Voltage : $V_{CBO} = -300V$, $V_{CEO} = -300V$
- Low Saturation Voltage : $V_{CE(sat)} = -0.5V$ (Max.)
- Small Collector Output Capacitance : $C_{ob} = 6pF$ (Typ.)
- Complementary to 2SC2551.

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

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	400	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

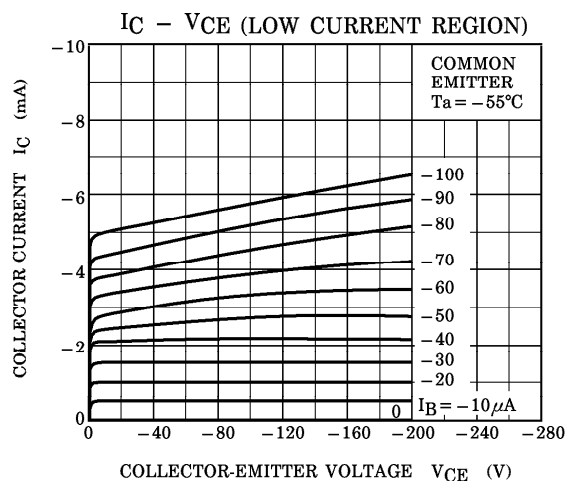
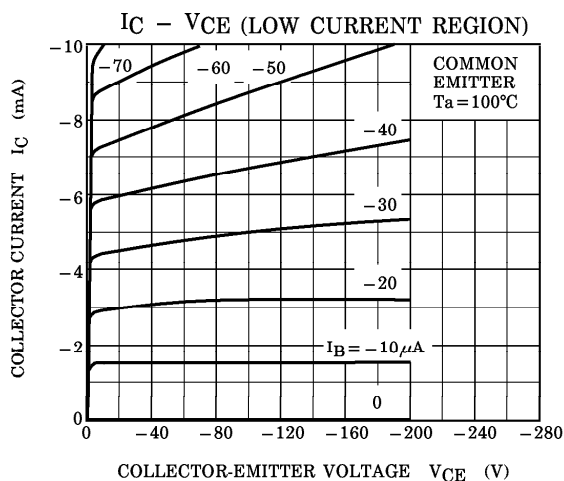
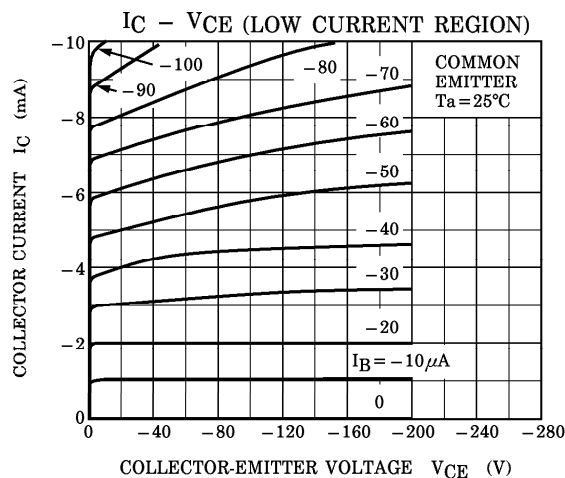
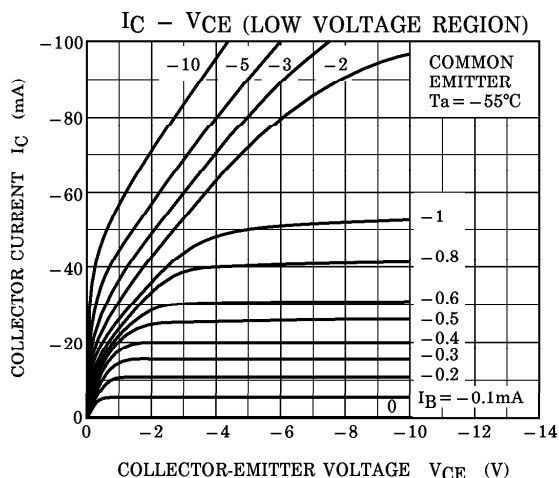
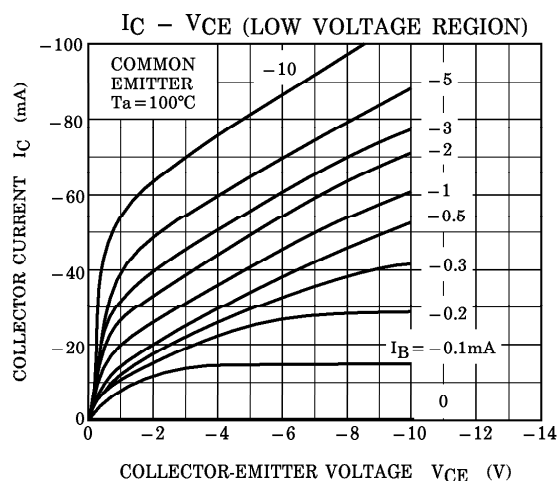
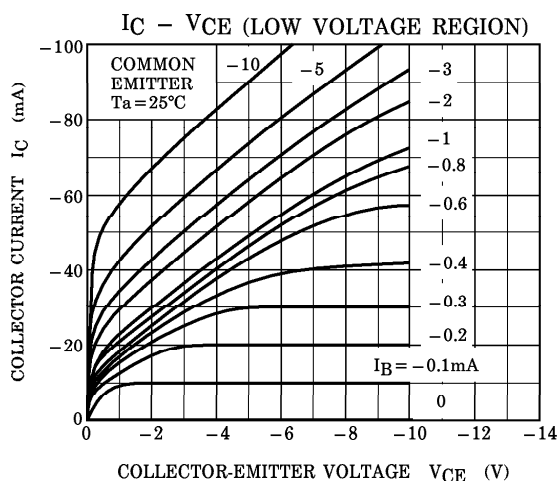
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

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

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

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