

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

# 2SC2551

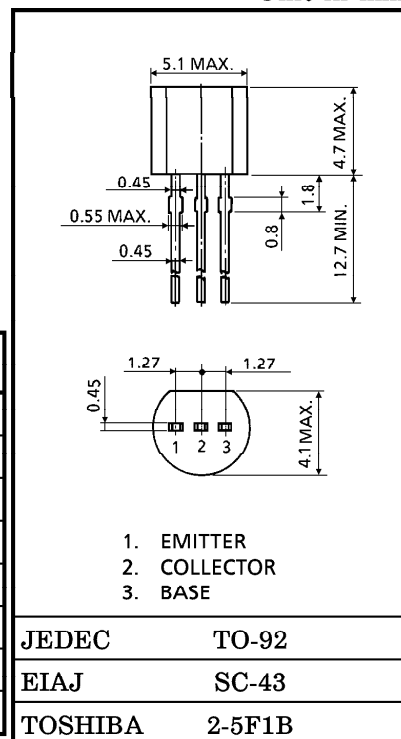
HIGHT VOLTAGE CONTROL APPLICATIONS  
 PLASMA DISPLAY, NIXIE TUBE DRIVER APPLICATIONS  
 CATHODE RAY TUBE BRIGHTNESS CONTROL APPLICATIONS

INDUSTRIAL APPLICATIONS  
 Unit in mm

- High Voltage :  $V_{CBO}=300V, V_{CEO}=300V$
- Low Saturation Voltage :  $V_{CE(sat)}=0.5V(\text{Max.})$
- Small Collector Output Capacitance :  $C_{ob}=3pF(\text{Typ.})$
- Complementary to 2SA1091.

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	$V_{EBO}$	6	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 ( $T_a = 25^\circ C$ )

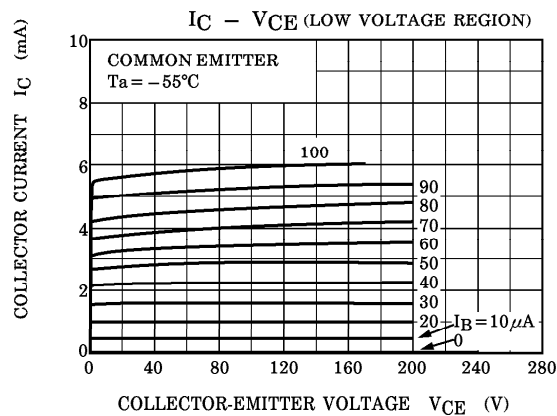
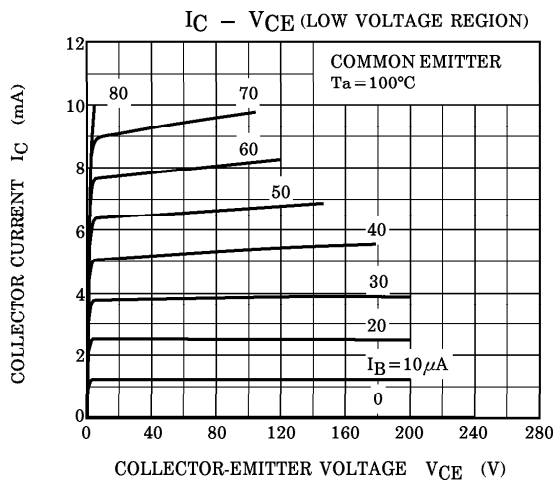
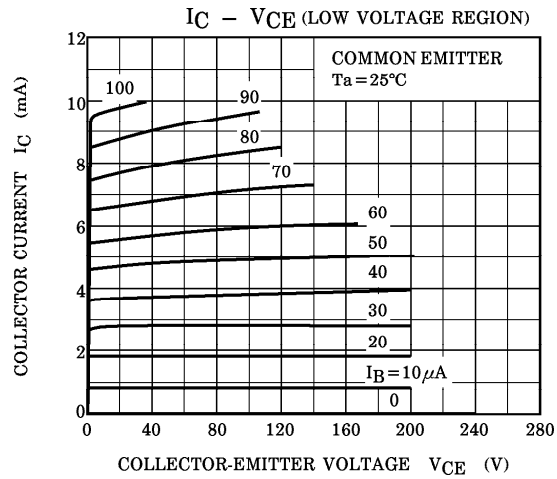
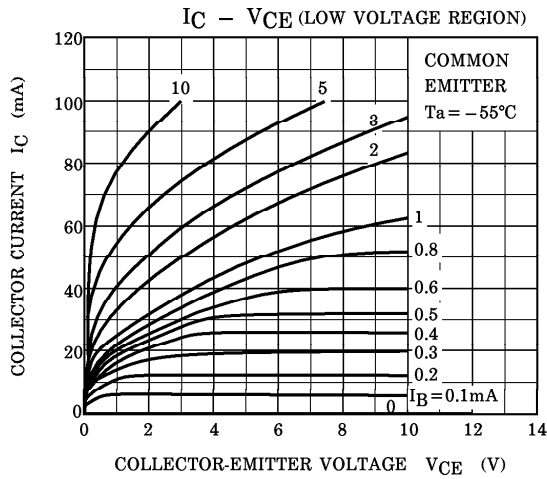
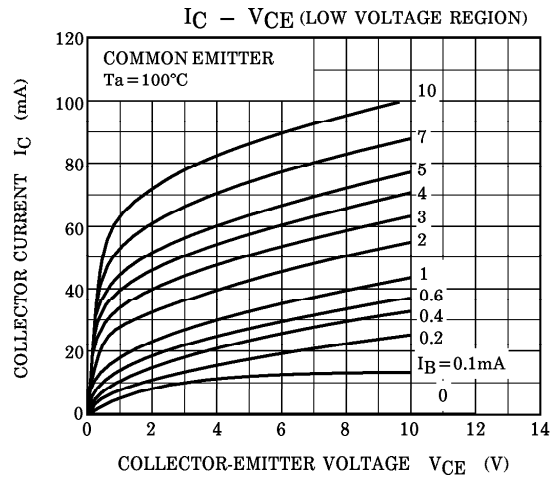
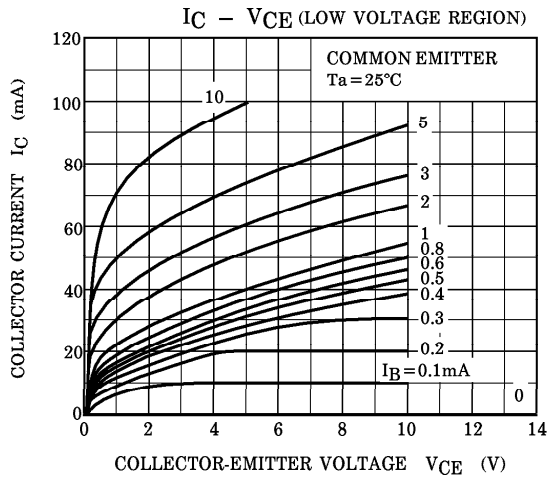
Weight : 0.21g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=300V, I_E=0$	—	—	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=6V, I_C=0$	—	—	0.1	$\mu A$
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	$V_{BE(sat)}$	$I_C=20mA, I_B=2mA$	50	—	1.2	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=20mA$	—	80	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=20V, I_E=0, f=1MHz$	—	3	4	pF

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

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