SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

S1298

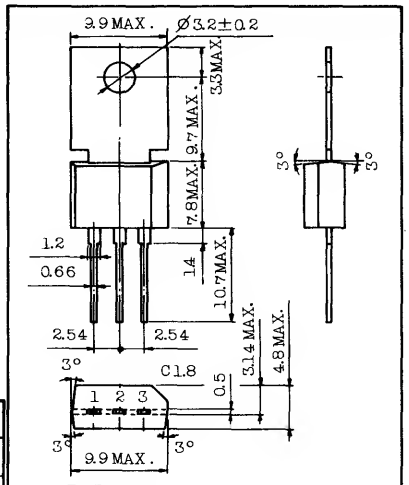
COLOR TV CHROMA OUTPUT APPLICATIONS.

FEATURES:

. High Collector-Emitter Breakdown Voltage : V_{CEO}=300V

. Low C_{cb} (2.5pF Typ.)

Unit in mm



1. EMITTER
2. BASE
3. COLLECTOR (HEAT SINK)

JEDEC	TO-202
EIAJ	—
TOSHIBA	2-10D1A

Weight : 1.4g

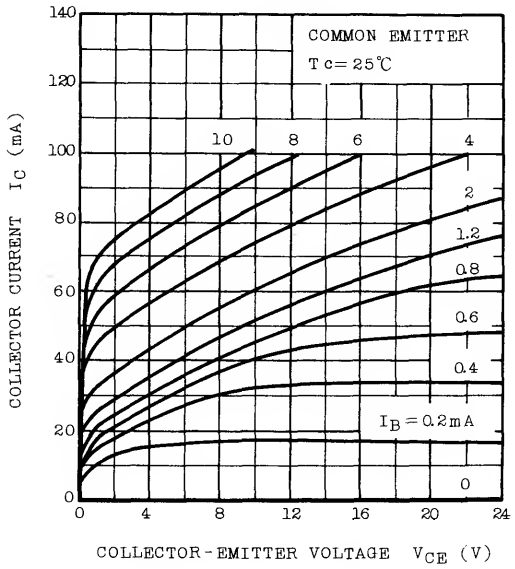
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	300	V
Collector-Emitter Voltage		V_{CEO}	300	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current		I_C	100	mA
Base Current		I_B	50	mA
Collector Power Dissipation	Ta=25°C	P_C	1.5	W
	Tc=25°C		6.25	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

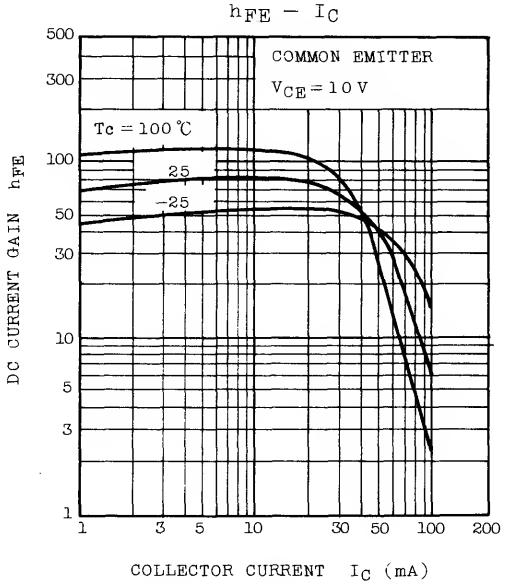
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=300V, I_E=0	-	-	10	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=7V, I_C=0	-	-	10	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=10V, I_C=4mA	20	-	-	
	$h_{FE(2)}$	V_{CE}=10V, I_C=20mA	30	-	150	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA	-	-	1.0	V
Transition Frequency	f_T	V_{CE}=10V, I_C=20mA	50	70	-	MHz
Collector-Base Capacitance	C_{cb}	V_{CB}=20V, I_E=0, f=1MHz	-	2.5	3.0	pF

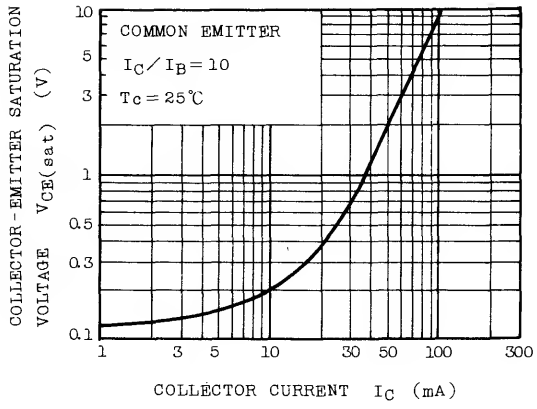
$I_C - V_{CE}$



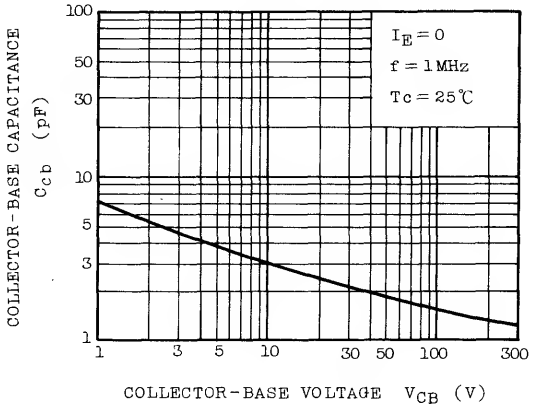
$h_{FE} - I_C$



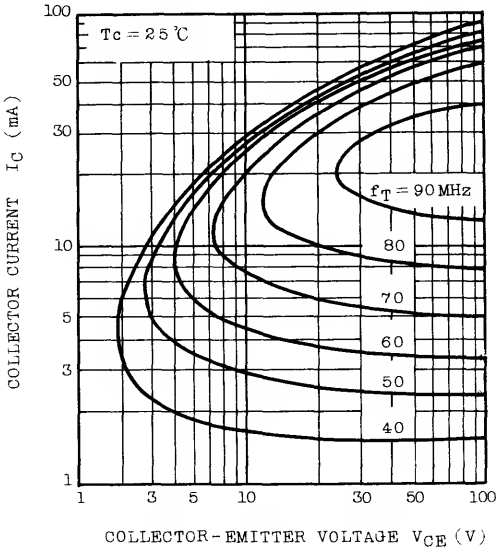
$V_{CE(sat)} - I_C$



$C_{cb} - V_{CB}$



$f_T - I_C, V_{CE}$



$P_C - Ta$