

9097250 TOSHIBA (DISCRETE/OPTO)

56C 08084 DT-33-05

BF469
BF471

SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

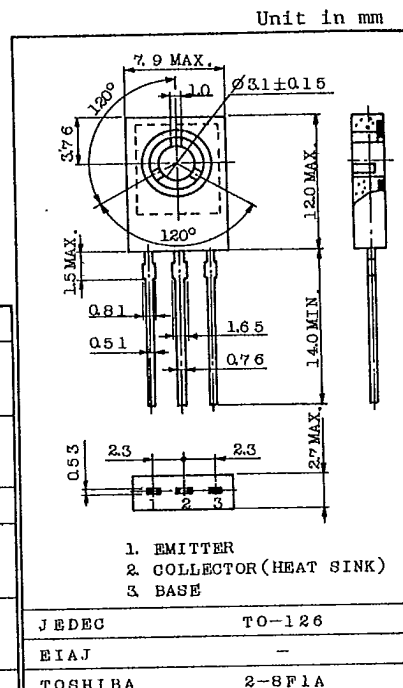
HIGH VOLTAGE SWITCHING AND AMPLIFIER APPLICATIONS.
COLOR TV CHROMA OUTPUT APPLICATIONS.

FEATURES:

• PNP Complements are BF470, and BF472

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	BF469	250	V
	BF471	300	
Collector-Emitter Voltage	BF469	250	V
	BF471	300	
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	DC	I_C	50 mA
	Peak	I_{CP}	100
Total Power Dissipation	$T_a=25^{\circ}\text{C}$	P_{tot}	1.2 W
	$T_c=25^{\circ}\text{C}$		5.0
Base Current	I_B	20	mA
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-65 ~ 150	$^{\circ}\text{C}$
Solder Temperature, 1.5mm from Case for 10 Seconds.		350	$^{\circ}\text{C}$



Weight : 0.72g

THERMAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	104	$^{\circ}\text{C/W}$
Thermal Resistance (Junction to Case)	$R_{\theta JC}$	25	$^{\circ}\text{C/W}$

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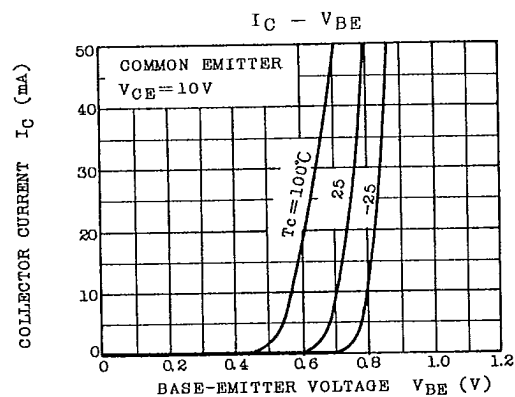
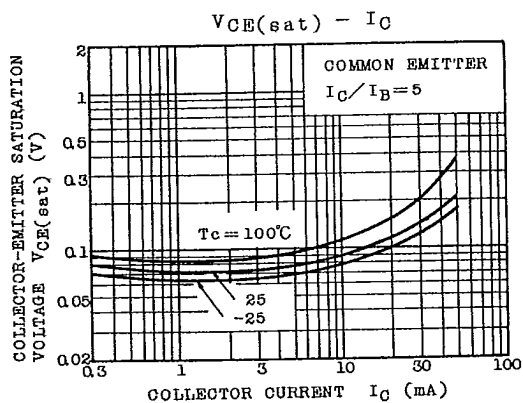
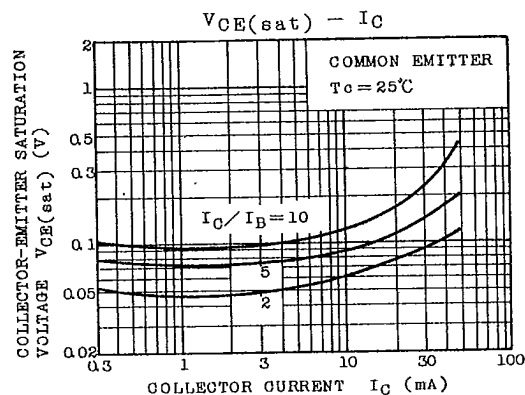
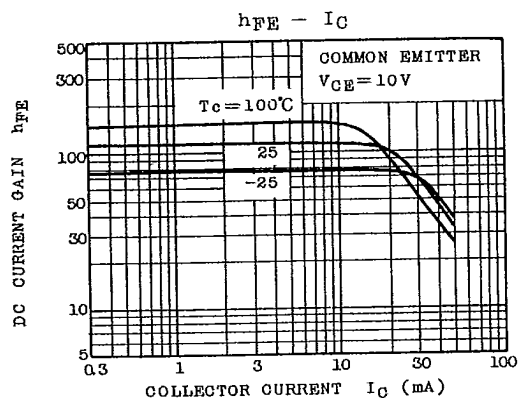
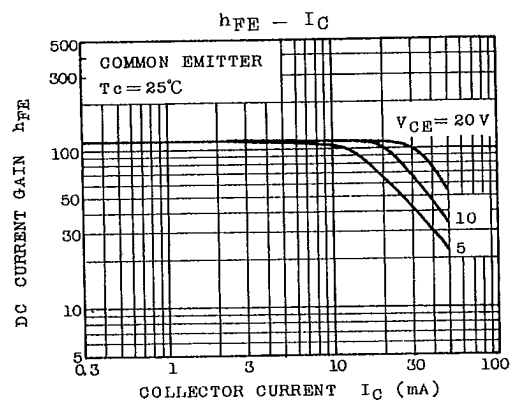
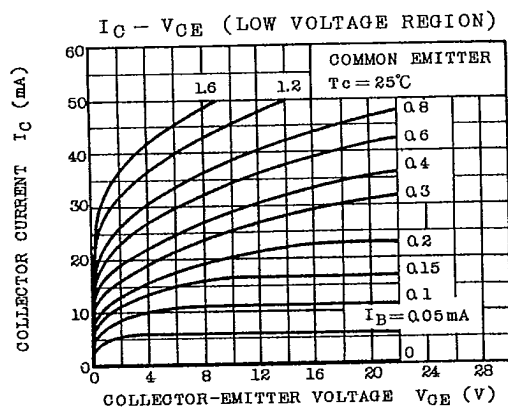
ELECTRICAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	BF469	ICBO	V _{CB} =200V, I _E =0	-	-	0.1	μA
	BF471	ICER	V _{CE} =250V, R _{BE} =2.7kΩ	-	-	0.05	
Emitter Cut-off Current		IEBO	V _{EB} =5V, I _C =0	-	-	10	μA
Collector-Emitter Breakdown Voltage	BF469	V _{(BR)CEO}	I _C =1mA, I _B =0	250	-	-	V
	BF471	V _{(BR)CER}	I _C =1μA, R _{BE} =2.7kΩ	300	-	-	
High Temperature Collector Cut-off Current		ICER	V _{CE} =200V, R _{BE} =2.7kΩ T _j =150°C	-	-	10	μA
DC Current Gain		h _{FE}	V _{CE} =20V, I _C =25mA	50	-	-	
Collector-Emitter Saturation Voltage	RF	V _{CE(sat)} RF	I _C =25mA, T _j =150°C	-	20	-	V
Base-Emitter Voltage		V _{BE}	V _{CE} =20V, I _C =25mA	-	0.75	-	V
Transition Frequency		f _T	V _{CE} =10V, I _C =10mA	60	100	-	MHz
Reverse Transfer Capacitance		C _{re}	V _{CB} =30V, I _E =0, f=1MHz	-	-	1.8	pF

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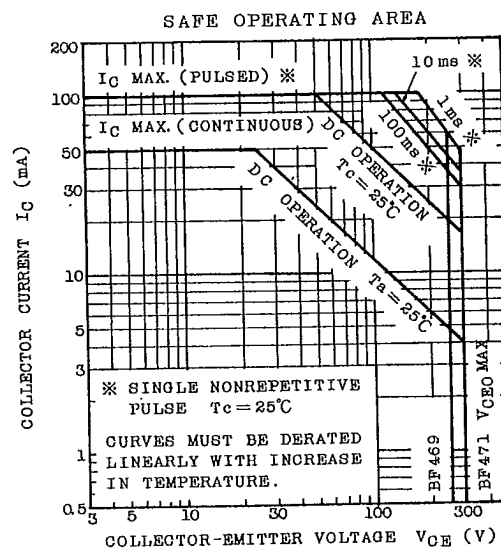
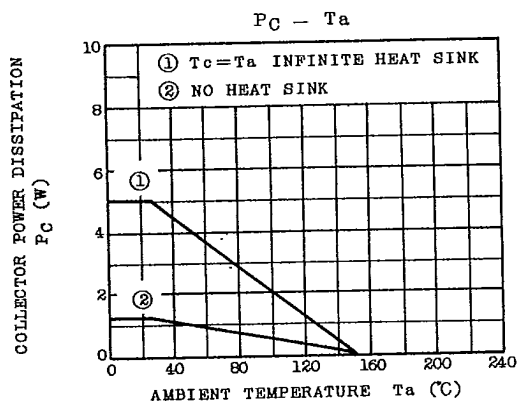
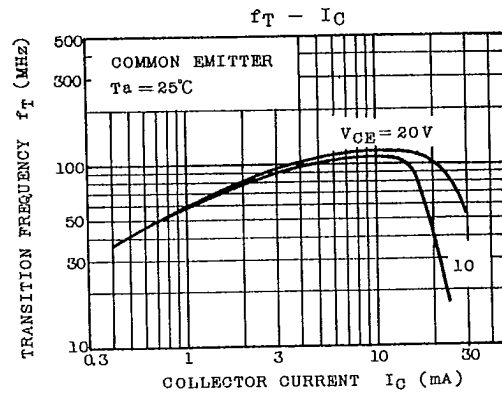
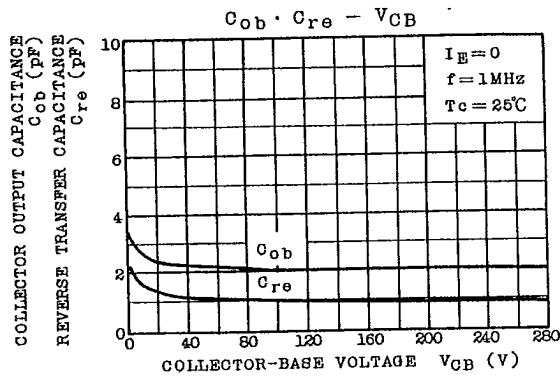
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