2SC3073

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

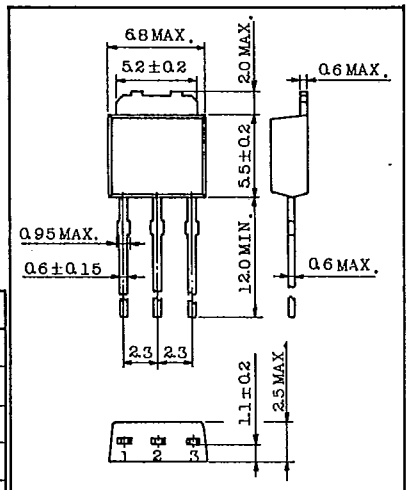
POWER AMPLIFIER APPLICATIONS.
CAR RADIO, CAR STEREO OUTPUT STAGE AMPLIFIER APPLICATIONS.

FEATURES:

. Good Linearity of h_{FE}

. Complementary to 2SA1243

Unit in mm



1. BASE
2. COLLECTOR (FIN)
3. EMITTER

JEDEC	—
EIAJ	—
TOSHIBA	2-7B1A

Weight : 0.36g

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	30	V
Collector-Emitter Voltage		V_{CEO}	30	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	3	A
Base Current		I_B	0.6	A
Collector Power Dissipation	$Ta=25^{\circ}C$	P_C	1.0	W
	$Tc=25^{\circ}C$		10	
Junction Temperature		T_j	150	$^{\circ}C$
Storage Temperature Range		T_{stg}	−55 ~ 150	$^{\circ}C$

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=20V$, $I_E=0$	-	-	1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V$, $I_C=0$	-	-	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA$, $I_B=0$	30	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA$, $I_C=0$	5	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=2V$, $I_C=0.5A$	70	-	240	
	$h_{FE(2)}$	$V_{CE}=2V$, $I_C=2.5A$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A$, $I_B=0.2A$	-	0.3	0.8	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2V$, $I_C=0.5A$	-	0.75	1.0	V
Transition Frequency	f_T	$V_{CE}=2V$, $I_C=0.5A$	-	100	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, f=1MHz	-	35	-	pF

Note: $h_{FE(1)}$ Classification O : 70 ~ 140, Y : 120 ~ 240

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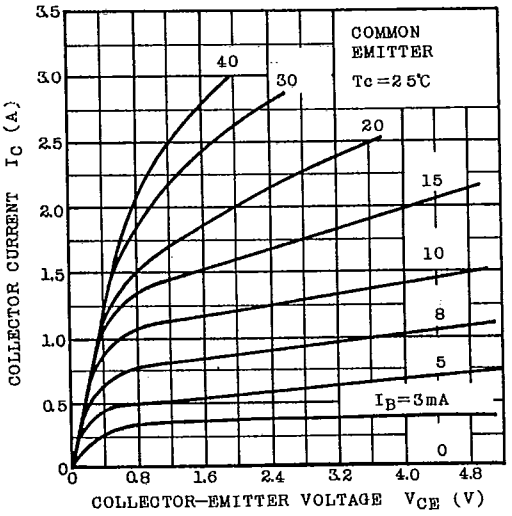
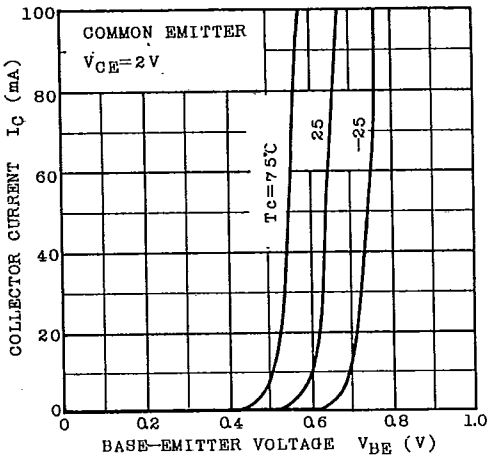
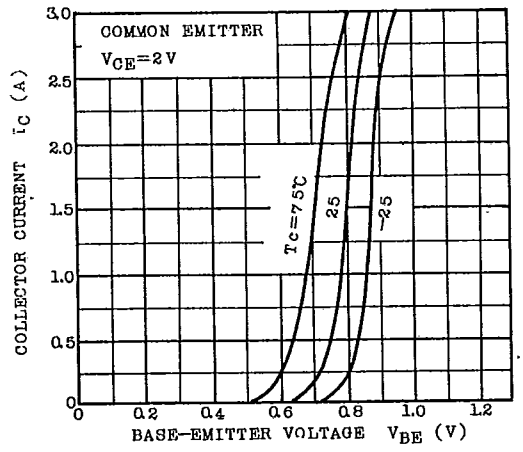
$I_C - V_{CE}$



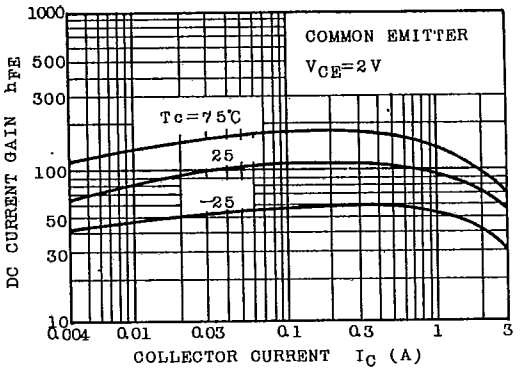
$I_C - V_{BE}$ (LOW CURRENT REGION)



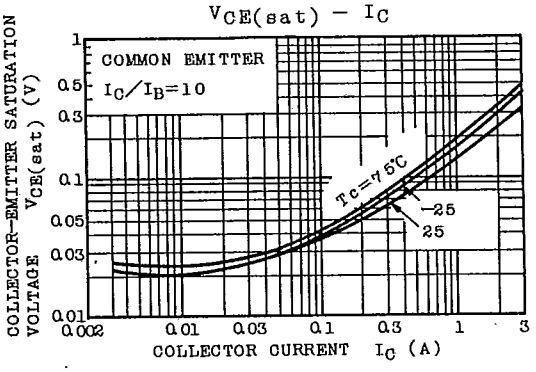
$I_C - V_{BE}$



$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



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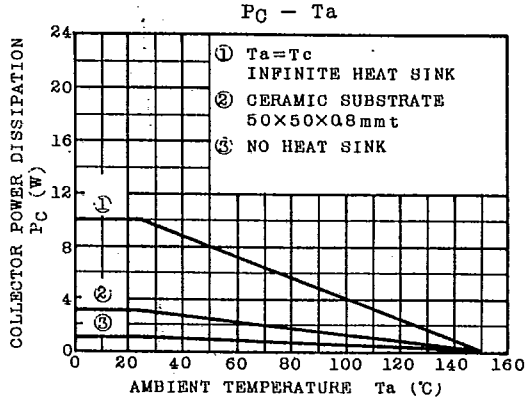
P_C – Ta



SAFE OPERATING AREA