SILICON PNP TRIPLE DIFFUSED TYPE

2N3791

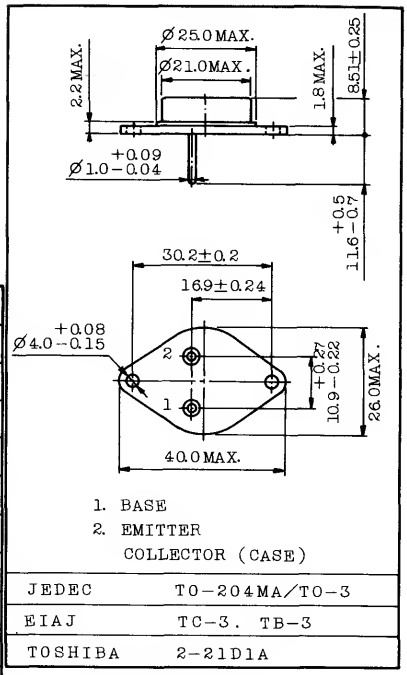
POWER AMPLIFIER, SWITCHING CIRCUIT AND REGULATOR APPLICATIONS

FEATURES:

. High Gain and Excellent h_{FE} Linearity:
h_{FE}=30 (Min.) @ V_{CE}=-2V, I_C=-3A

. Low Saturation Voltage:
$V_{CE(sat)}$=-1.0V (Max.) @ I_C=-5A, I_B=-0.5A

Unit in mm



1. BASE
2. EMITTER
COLLECTOR (CASE)

JEDEC	TO-204MA/TO-3
EIAJ	TC-3. TB-3
TOSHIBA	2-21D1A

Weight : 12.6g

MAXIMUM RATINGS (Ta=25°C)

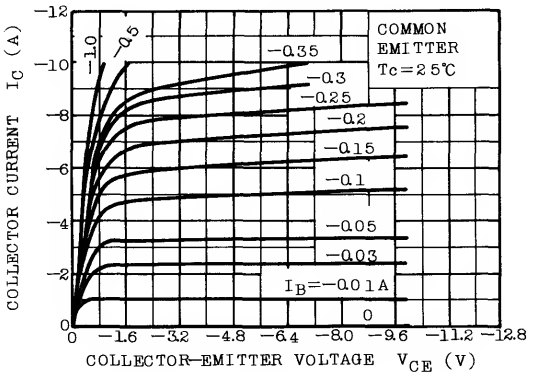
	CHARACTERISTIC		SYMBOL	RATING	UNIT
*	Collector-Base Voltage		V_{CBO}	-60	V
*	Collector-Emitter Voltage		V_{CEO}	-60	V
*	Emitter-Base Voltage		V_{EBO}	-7	V
*	Collector Current	DC	I_C	-10	A
		Peak	I_{CM}	-15	A
*	Base Current		I_B	-4	A
*	Collector Power Dissipation (Tc=25°C)		P_C	150	W
	Derate Linearly above 25°C			0.86	W/°C
*	Junction Temperature		T_j	200	°C
*	Storage Temperature Range		T_{stg}	-65 ∿ 200	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

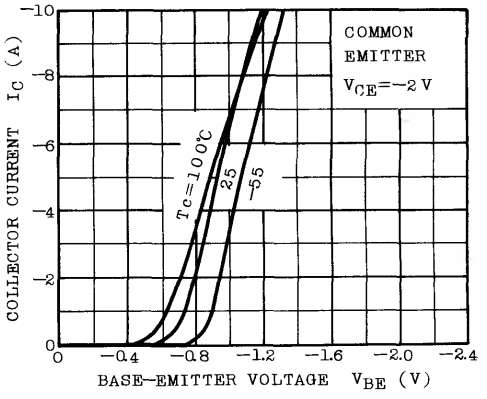
	CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
*	Collector Cut-off Current		I_{CEX}	V_{CE}=-60V, V_{BE}=1.5V	-	-	-1	mA
*	Collector Cut-off Current		I_{CEX}	V_{CE}=-60V, V_{BE}=1.5V, Tc=150°C	-	-	-5	mA
*	Collector Cut-off Current		I_{CEO}	V_{CE}=-30V, I_B=0	-	-	-10	mA
*	Emitter Cut-off Current		I_{EBO}	V_{EB}=-7V, I_C=0	-	-	-5	mA
*	Collector-Emitter Sustaining Voltage		$V_{CEO(SUS)}$ **	I_C=-0.2A, I_B=0	-60	-	-	V
*	DC Current Gain		h_{FE}	V_{CE}=-2V, I_C=-1A	50	-	150	
				V_{CE}=-2V, I_C=-3A	30	-	-	
*	Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	I_C=-5A, I_B=-0.5A	-	-	-1.0	V
		Base-Emitter	$V_{BE(sat)}$	I_C=-5A, I_B=-0.5A	-	-	-1.5	V
*	Transition Frequency		f_T	V_{CE}=-10V, I_C=-0.5A f=1MHz	4	-	-	MHz
	Collector Output Capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	-	500	pF

* In Accordance with JEDEC Registration Data.
** The sustaining voltage $V_{CEO(SUS)}$ MUST NOT be measured on a curve tracer.

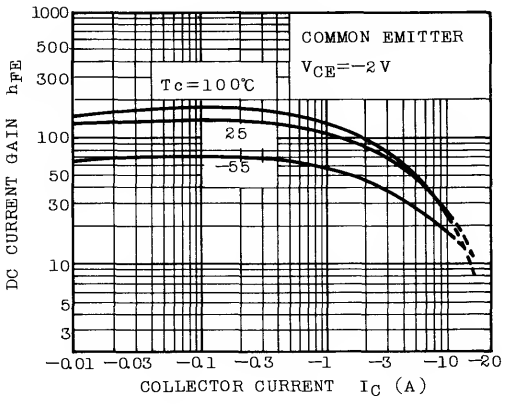
$I_C - V_{CE}$



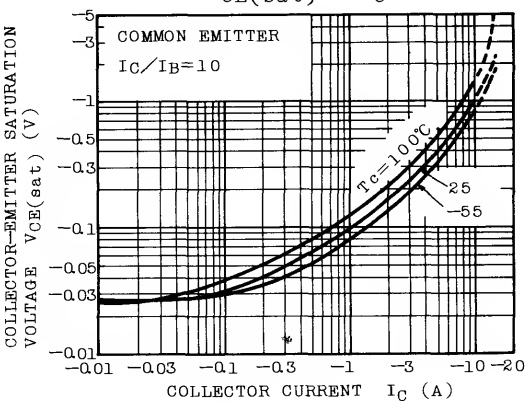
$I_C - V_{BE}$



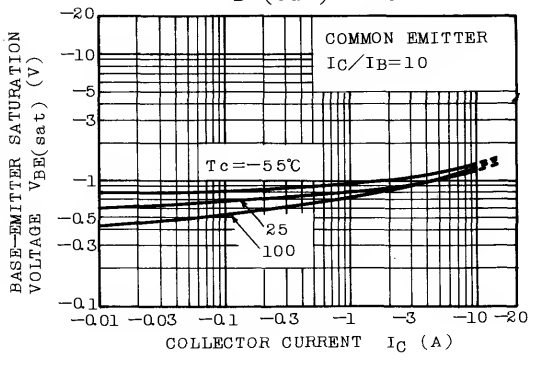
$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



$P_C - T_C$