SILICON PNP TRIPLE DIFFUSED TYPE

2N3789

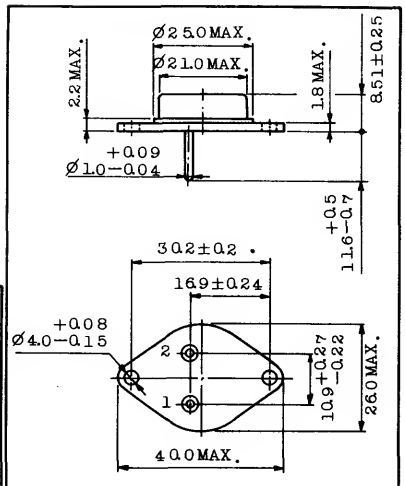
POWER AMPLIFIER, SWITCHING CIRCUIT AND REGULATOR APPLICATIONS.

FEATURES:

. High Gain and Excellent h_{FE} Linearity:
h_{FE}=15 (Min.) @ V_{CE}=-2V, I_C=-3A

. Low Saturation Voltage:
$V_{CE(sat)}$=-1.0V (Max.) @ I_C=-4A, I_B=-0.4A

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

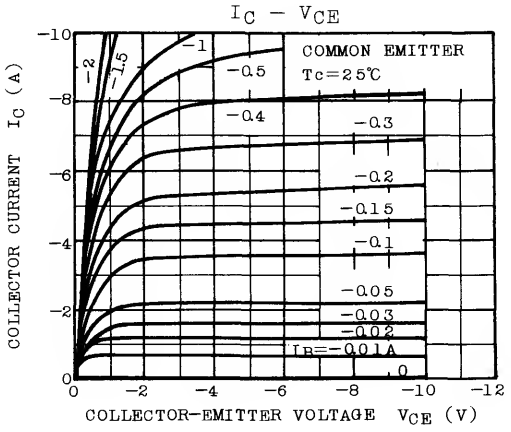
MAXIMUM RATINGS (Ta=25°C)

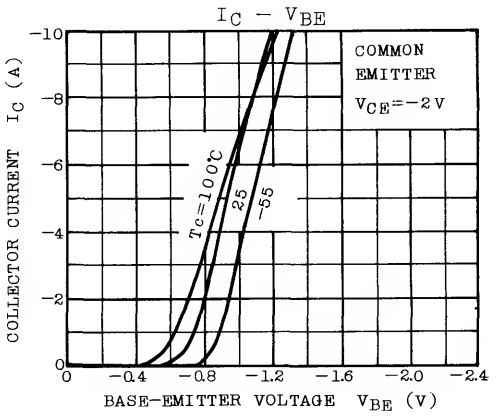
	CHARACTERISTIC		SYMBOL	RATING	UNIT
※	Collector-Base Voltage		V_{CBO}	-60	V
※	Collector-Emitter Voltage		V_{CEO}	-60	V
※	Emitter-Base Voltage		V_{EBO}	-7	V
※	Collector Current	DC	I_C	-10	A
		Peak	I_{CM}	-15	A
※	Base Current		I_B	-4	A
※	Collector Power Dissipation (Tc=25°C)		P_C	150	W
	Derate Linearly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

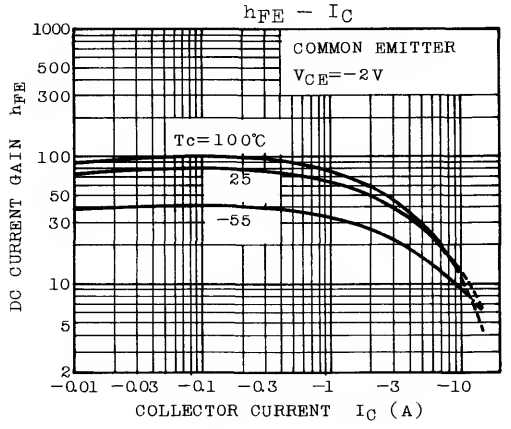
ELECTRICAL CHARACTERISTICS (Ta=25°C)

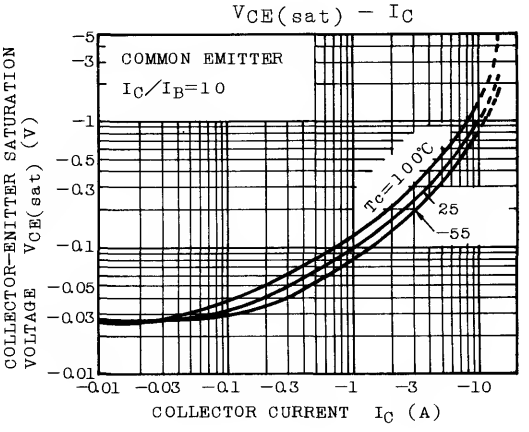
	CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
※	Collector Cut-off Current		I_{CEX}	V_{CE}=-60V, V_{BE}=1.5V	-	-	-1	mA
※	Collector Cut-off Current		I_{CEX}	V_{CE}=-60V, V_{BE}=1.5V Tc=150°C	-	-	-5	mA
※	Collector Cut-off Current		I_{CEO}	V_{CE}=-30V, I_B=0	-	-	-10	mA
※	Emitter Cut-off Current		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	25	-	90	
				V_{CE}=-2V, I_C=-3A	15	-	-	
※	Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	I_C=-4A, I_B=-0.4A	-	-	-1.0	V
		Base-Emitter	$V_{BE(sat)}$	I_C=-4A, I_B=-0.4A	-	-	-2.0	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

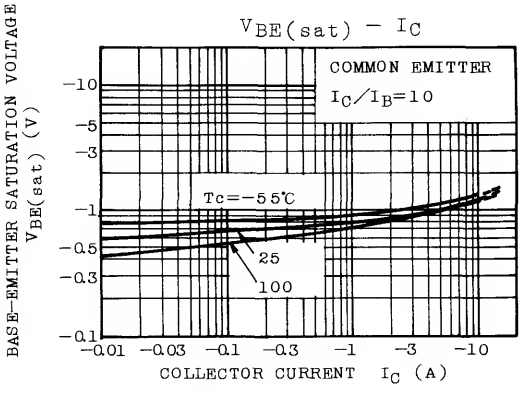
※In accordance with JEDEC registration data.
※※The sustaining voltage VCEO(SUS) MUST NOT be measured on a curve tracer.

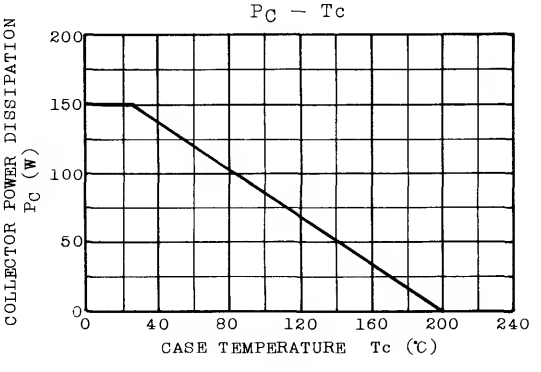

I_C – V_{CE}
COMMON EMITTER
Tc=25℃
COLLECTOR CURRENT I_C (A)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)
I_B=-0.1A
0


I_C – V_{BE}
COMMON EMITTER
V_{CE}=-2V
Tc=100℃
25
-55
COLLECTOR CURRENT I_C (A)
BASE-EMITTER VOLTAGE V_{BE} (V)


h_{FE} – I_C
COMMON EMITTER
V_{CE}=-2V
Tc=100℃
25
-55
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (A)


$V_{CE(sat)}$ – I_C
COMMON EMITTER
I_C/I_B=10
Tc=100℃
25
-55
COLLECTOR-EMITTER SATURATION VOLTAGE $V_{CE(sat)}$ (V)
COLLECTOR CURRENT I_C (A)


$V_{BE(sat)}$ – I_C
COMMON EMITTER
I_C/I_B=10
Tc=-55℃
25
100
BASE-EMITTER SATURATION VOLTAGE $V_{BE(sat)}$ (V)
COLLECTOR CURRENT I_C (A)


P_C – Tc
COLLECTOR POWER DISSIPATION P_C (W)
CASE TEMPERATURE Tc (℃)