TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL (PCT PROCESS)

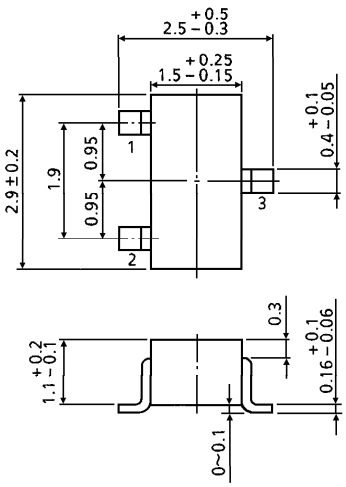
2SA1298

LOW FREQUENCY POWER AMPLIFIER APPLICATION

POWER SWITCHING APPLICATIONS

- High DC Current Gain : h_{FE} = 100~320
- Low Saturation Voltage : $V_{CE\,(sat)}$ = −0.4 V (Max.)
  (I_C = −500 mA, I_B = −20 mA)
- Suitable for Driver Stage of Small Motor
- Complementary to 2SC3265
- Small Package

Unit in mm



1. BASE
2. EMITTER
3. COLLECTOR

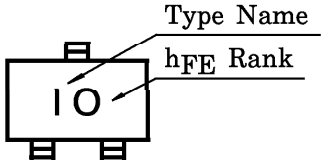
S-MINI	
JEDEC	TO-236 MOD
EIAJ	SC-59
TOSHIBA	2-3F1A

Weight : 0.012 g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	−30	V
Collector-Emitter Voltage	V_{CEO}	−25	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−800	mA
Base Current	I_B	−160	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

Marking

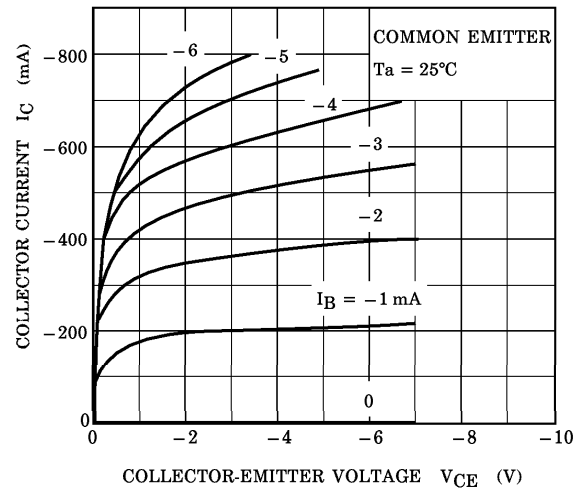


ELECTRICAL CHARACTERISTICS (Ta = 25°C)

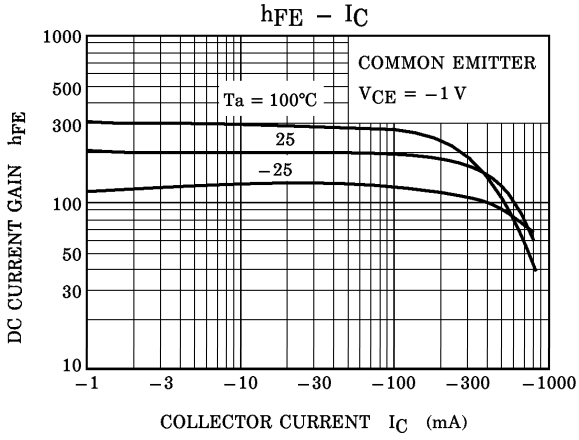
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -30$ V, $I_E = 0$	—	—	−0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -50$ V, $I_C = 0$	—	—	−0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)\,CEO}$	$I_C = -10$ mA, $I_B = 0$	−25	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)\,EBO}$	$I_E = -0.1$ mA, $I_C = 0$	−5	—	—	V
DC Current Gain	$h_{FE\,(1)}$ (Note)	$V_{CE} = -1$ V, $I_C = -100$ mA	100	—	320	
	$h_{FE\,(2)}$	$V_{CE} = -1$ V, $I_C = -800$ mA	40	—	—	
Collector-Emitter Saturation Voltage	$V_{CE\,(sat)}$	$I_C = -500$ mA, $I_B = -20$ mA	—	—	−0.4	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -1$ V, $I_C = -10$ mA	−0.5	—	−0.8	V
Transition Frequency	f_T	$V_{CE} = -5$ V, $I_C = -10$ mA	—	120	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz	—	13	—	pF

Note : $h_{FE\,(1)}$ Classification O : 100~200, Y : 160~320

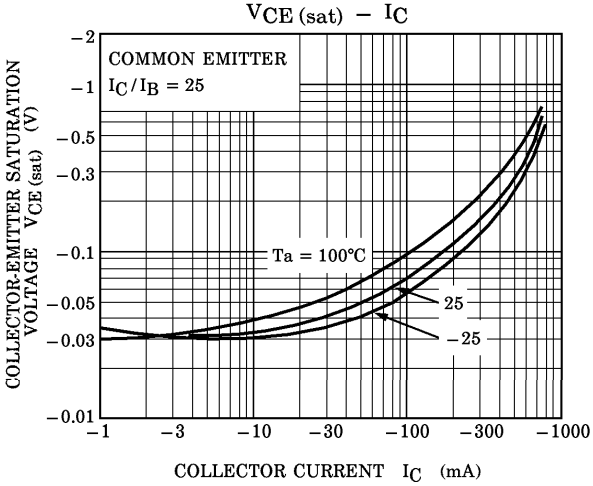
$I_C - V_{CE}$



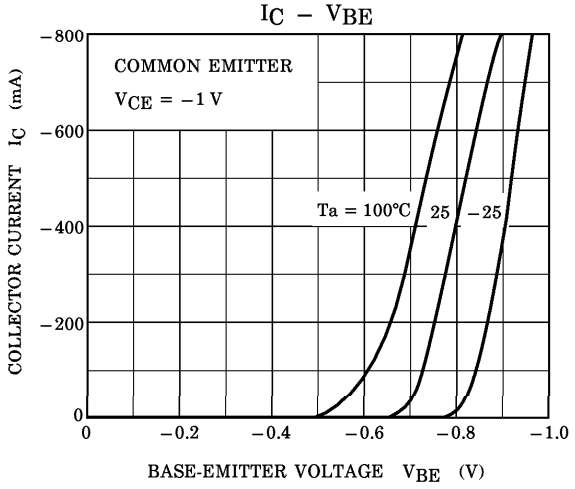
$h_{FE} - I_C$



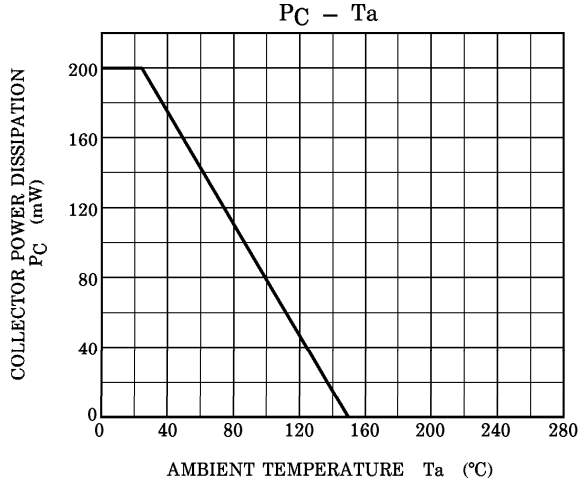
$V_{CE\,(sat)} - I_C$



$I_C - V_{BE}$



$P_C - Ta$



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