

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (DARLINGTON POWER TRANSISTOR)

# 2SB1555

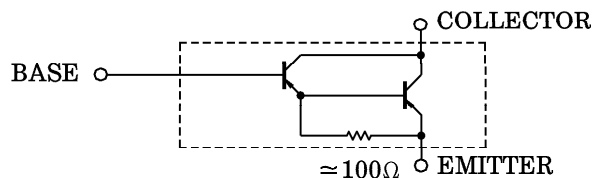
○ POWER AMPLIFIER APPLICATIONS

- High Breakdown Voltage :  $V_{CEO} = -140V$  (Min.)
- Complementary to 2SD2384

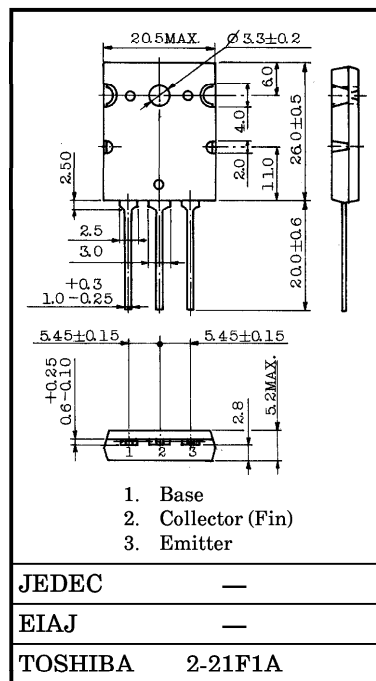
MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-140	V
Collector-Emitter Voltage	$V_{CEO}$	-140	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-7	A
Base Current	$I_B$	-0.1	A
Collector Power Dissipation ( $T_c = 25^\circ C$ )	$P_C$	100	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$

EQUIVALENT CIRCUIT



Unit in mm



ELECTRICAL CHARACTERISTIC ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -140V, I_E = 0$	—	—	-5.0	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	—	—	-5.0	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -50mA, I_B = 0$	-140	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -5V, I_C = -6A$	5000	—	30000	—
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -10A$	2000	—	—	—
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -6A, I_B = -6mA$	—	—	-2.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -5V, I_C = -6A$	—	—	-3.0	V
Transition Frequency	$f_T$	$V_{CE} = -5V, I_C = -1A$	—	30	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	120	—	pF

Note :  $h_{FE}$  (1) Classification    A : 5000~12000, B : 9000~18000, C : 15000~30000

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