

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

2SB1642

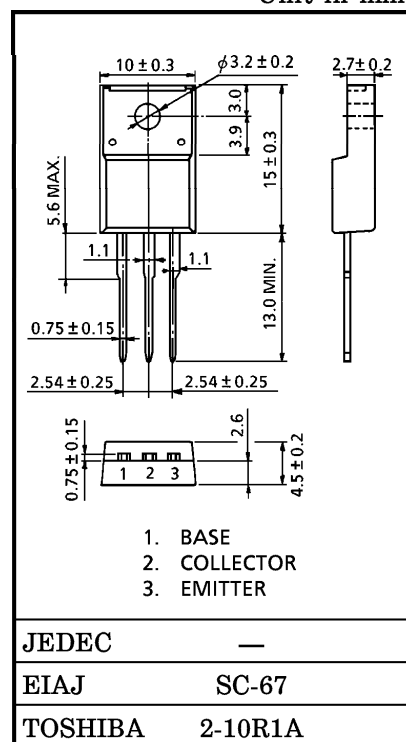
AUDIO FREQUENCY POWER AMPLIFIER APPLICATIONS

Unit in mm

- Low Collector Saturation Voltage
: $V_{CE(sat)} = -1.5V$ (Max.) ($I_C = -2.5A, I_B = -0.25A$)
- Collector Power Dissipation : $P_C = 25W$ ($T_c = 25^\circ C$)
- Collector Metal (Fin) is Fully Covered with Mold Resin

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-7	V
Collector Current	I_C	-4	A
Base Current	I_B	-1	A
Collector Power Dissipation	P_C	$T_a = 25^\circ C$	2.0
		$T_c = 25^\circ C$	25
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CB0}	$V_{CB} = -60V, I_E = 0$	—	—	-10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -7V, I_C = 0$	—	—	-10	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-60	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -5V, I_C = -0.5A$	100	—	320	
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -3A$	20	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -2.5A, I_B = -0.25A$	—	-0.7	-1.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -5V, I_C = -0.5A$	—	-0.75	-1.0	V
Transition Frequency	f_T	$V_{CE} = -5V, I_C = -0.5A$	—	9	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	50	—	pF

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