

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

# 2SD2352

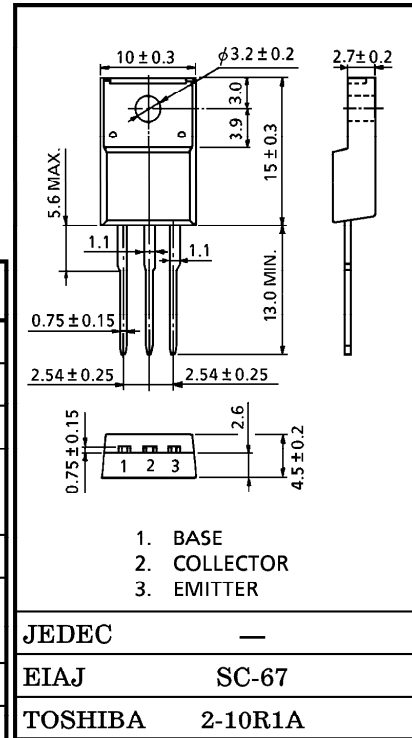
POWER AMPLIFIER APPLICATIONS

Unit in mm

- High DC Current Gain :  $h_{FE} = 800 \sim 3200$
- Low Collector Saturation Voltage :  $V_{CE(sat)} = 0.3V$  (Typ.)

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

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	$I_C$	2	A
	Pulse	$I_{CP}$	4	
Base Current		$I_B$	0.4	A
Collector Power Dissipation	$T_a = 25^\circ C$	$P_C$	2	W
	$T_c = 25^\circ C$		25	
Junction Temperature		$T_j$	150	$^\circ C$
Storage Temperature Range		$T_{stg}$	-55~150	$^\circ C$



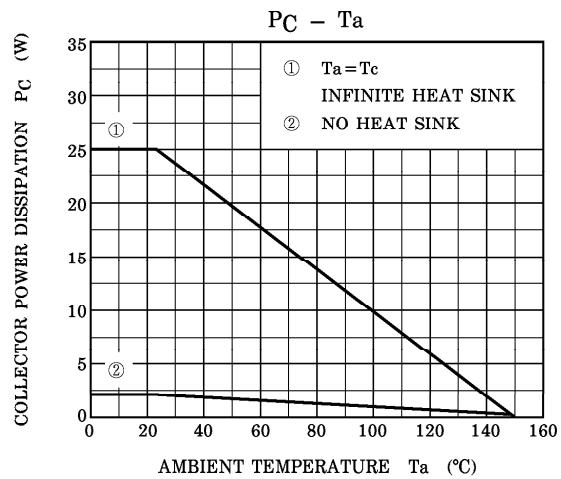
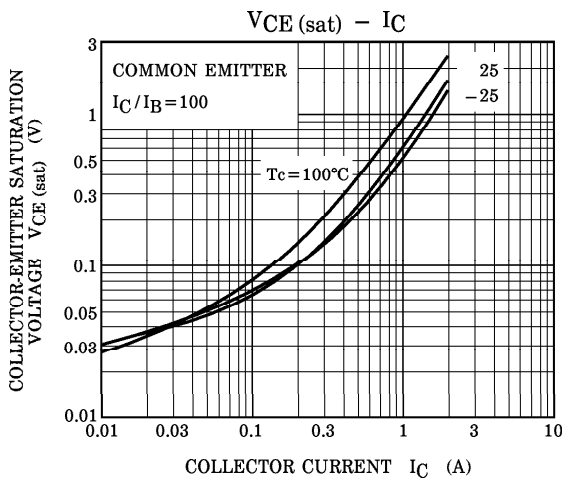
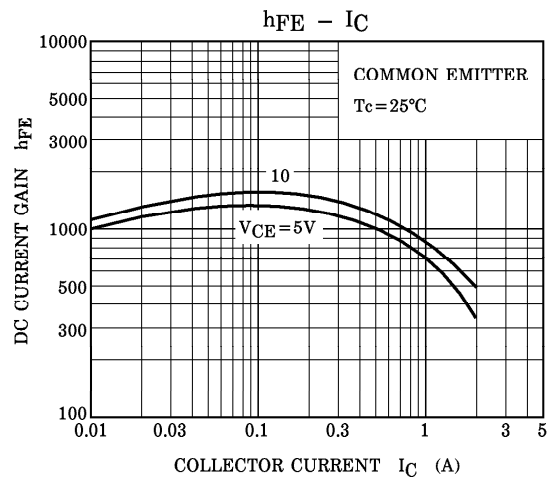
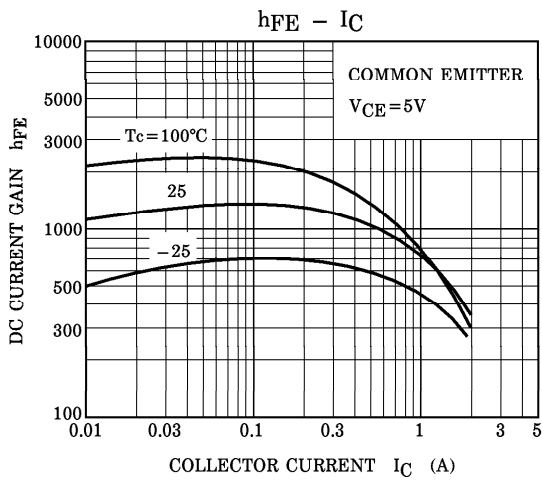
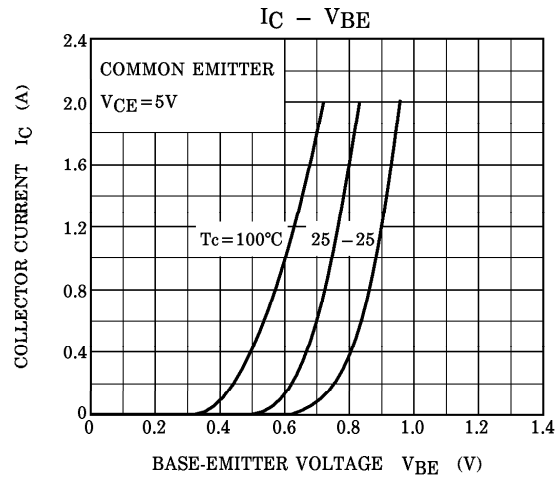
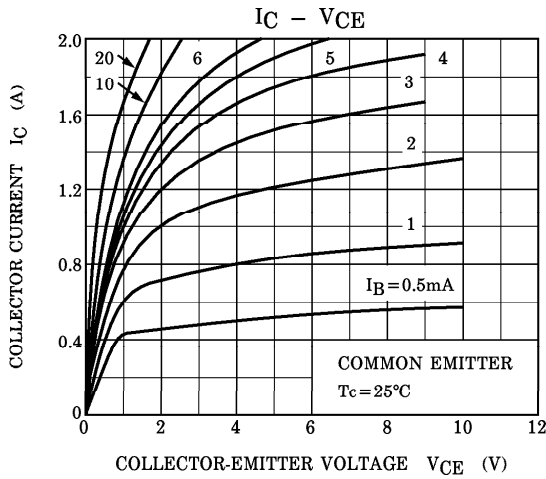
Weight : 1.7g (Typ.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 60V, I_E = 0$	—	—	100	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 7V, I_C = 0$	—	—	100	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{CEO}$	$I_C = 50mA, I_B = 0$	60	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5V, I_C = 0.1A$	800	—	3200	
	$h_{FE(2)}$	$V_{CE} = 5V, I_C = 1A$	350	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 0.5A, I_B = 5mA$	—	0.3	1.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 5V, I_C = 0.5A$	—	0.7	1.0	V
Transition Frequency	$f_T$	$V_{CE} = 5V, I_C = 0.5A$	—	17	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	30	—	pF

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