

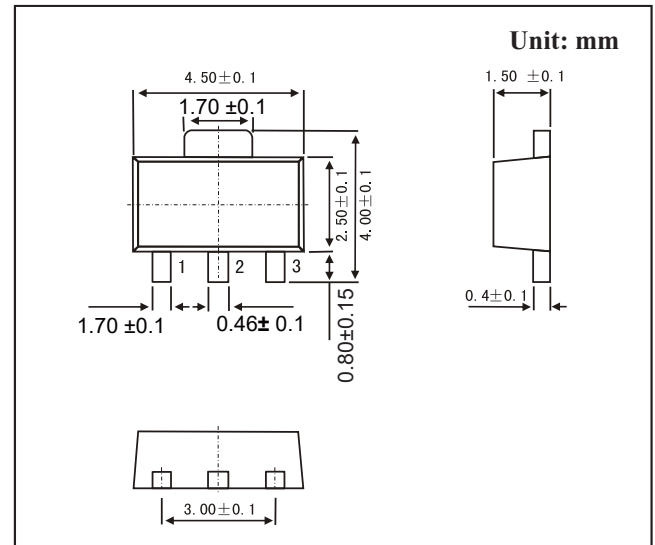
SOT-89 Plastic-Encapsulate Transistors

FEATURES

- Low collector to emitter saturation voltage
- Large current capacity and wide ASO
- Fast switching speed.
- Transistors NPN

MECHANICAL DATA

- Case style:SOT-89 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

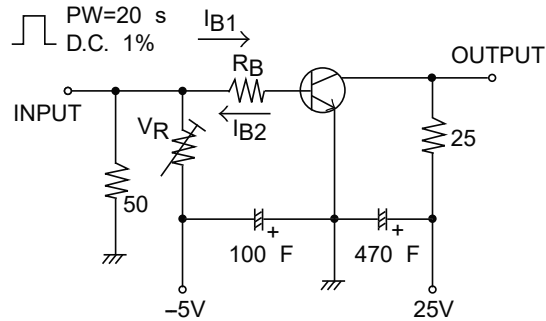
@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	60	V
Collector - Emitter Voltage	V_{CEO}	50	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	3	A
Collector Current - Pulse	I_{CP}	6	
Collector Power Dissipation (Note.1)	P_C	0.5	W
		1.5	
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	-55 to +150	

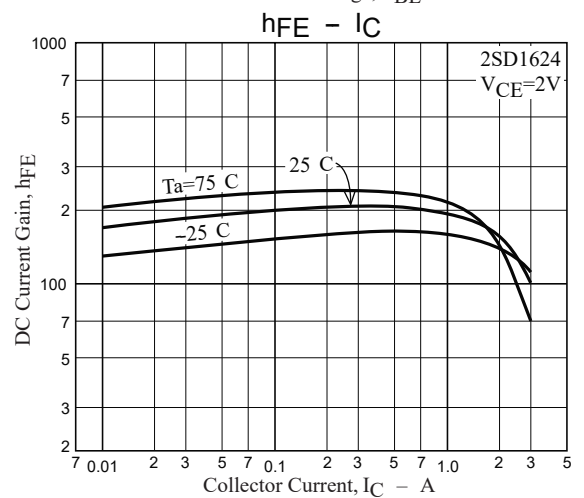
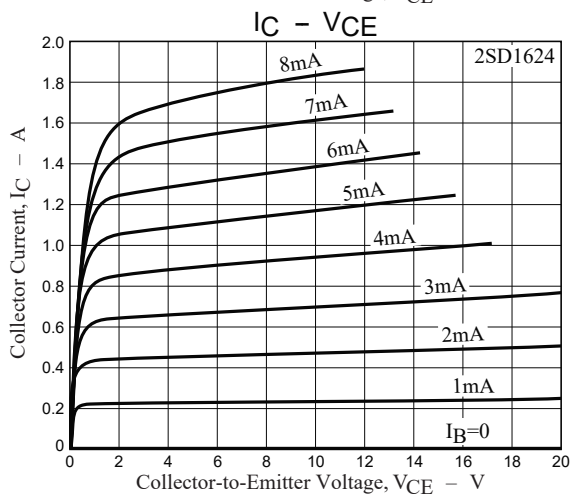
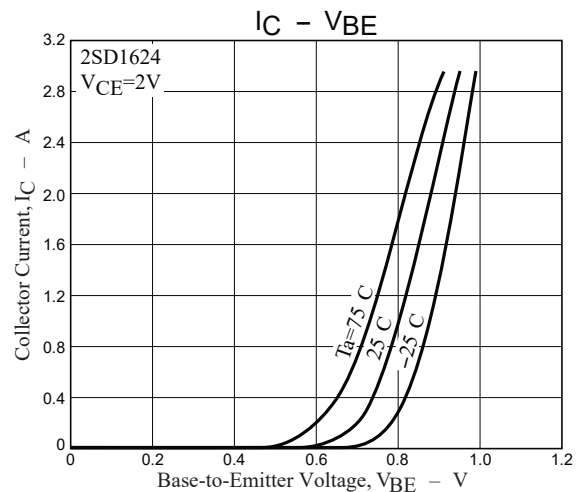
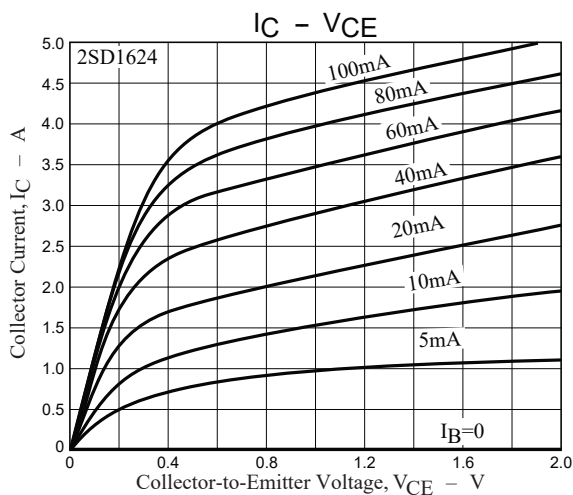
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100 \mu A, I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 \text{ mA}, R_{BE} = \infty$	50			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	6			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 50 \text{ V}, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 \text{ V}, I_C = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2 \text{ A}, I_B = 100 \text{ mA}$		0.19	0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2 \text{ A}, I_B = 100 \text{ mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 2 \text{ V}, I_C = 100 \text{ mA}$	100		560	
		$V_{CE} = 2 \text{ V}, I_C = 3 \text{ A}$	35			
Turn-ON Time	t_{on}	See specified Test Circuit		70		ns
Storage Time	t_{stg}			650		
Fall Time	t_f			35		
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		25		pF
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_C = 50 \text{ mA}$		150		MHz

RATINGS AND CHARACTERISTIC CURVES

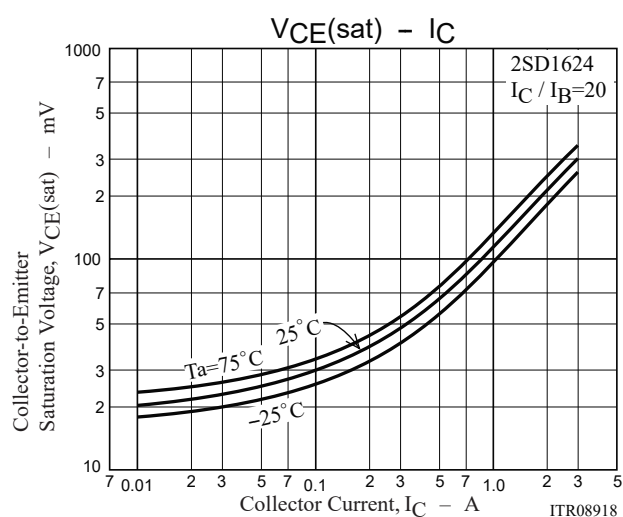
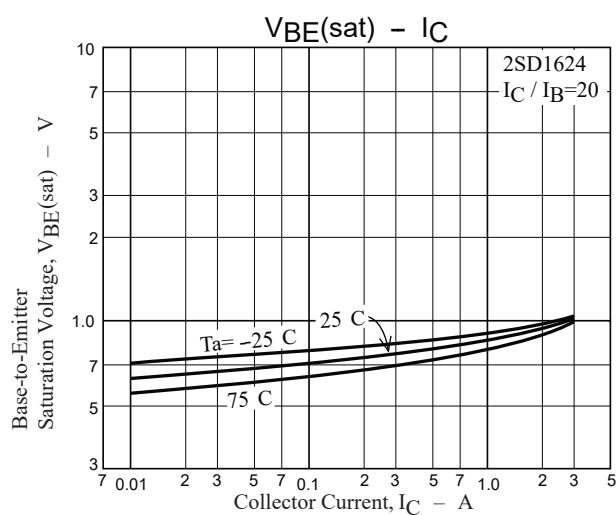
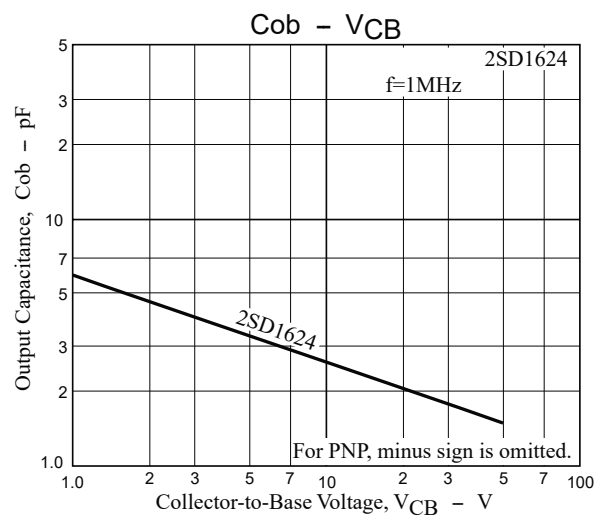
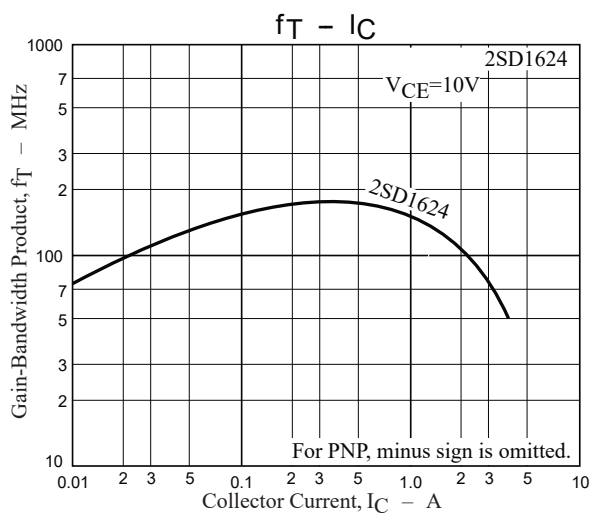
Switching Time Test Circuit



$10I_{B1} = -10I_{B2} = I_C = 1A$
(For PNP, the polarity is reversed.)



RATINGS AND CHARACTERISTIC CURVES



ITR08918

