

TO-252 Plastic-Encapsulate Transistors

Features

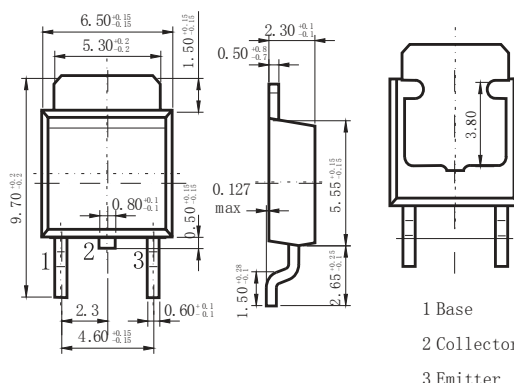
- Low $V_{CE(sat)}$. $V_{CE(sat)} = -0.5V$
- Complementary to 2SD1758
- PNP Transistors

MECHANICAL DATA

- Case style: TO-252 molded plastic
- Mounting position: any

TO-252

Unit: mm



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-40	V
Collector - Emitter Voltage	V_{CEO}	-32	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-2	A
Collector current -Pulse	I_{CP}	-3	
Collector Power Dissipation $T_c=25^\circ C$ $T_a = 25^\circ C$	P_C	10	W
		1	
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu A, I_E = 0$	-40			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 mA, I_B = 0$	-32			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2 A, I_B = -200mA$		-0.5	-0.8	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -2 A, I_B = -200mA$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -3V, I_C = -500 mA$	120		390	
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		50		pF
Transition frequency	f_T	$V_{CE} = -5V, I_E = 500mA, f = 100MHz$		100		MHz

Classification of h_{FE}

Type	2SB1182-Q	2SB1182-R
Range	120-270	180-390

RATINGS AND CHARACTERISTIC CURVES

■ Typical Characteristics

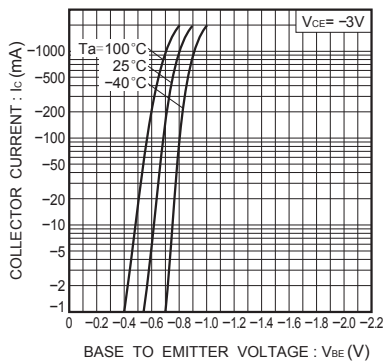


Fig.1 Grounded emitter propagation characteristics

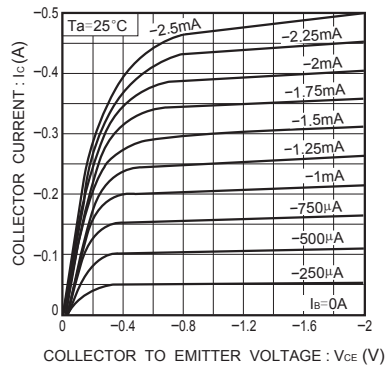


Fig.2 Grounded emitter output characteristics

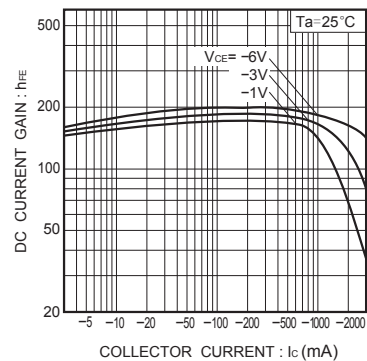


Fig.3 DC current gain vs. collector current (I)

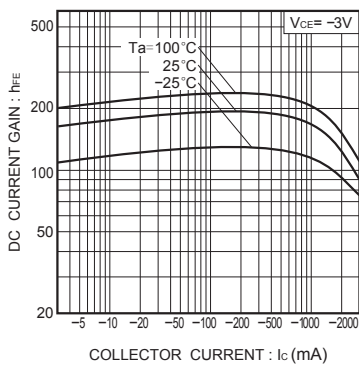


Fig.4 DC current gain vs. collector current (II)

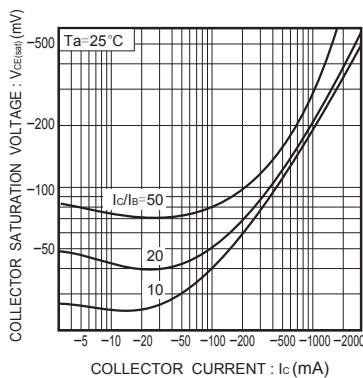


Fig.5 Collector-emitter saturation voltage vs. collector current (I)

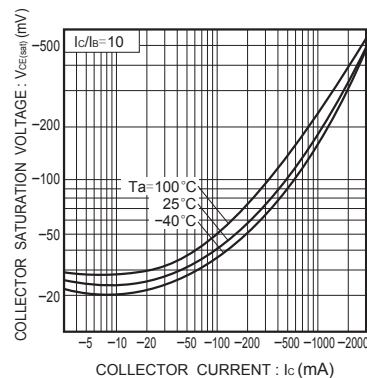


Fig.6 Collector-emitter saturation voltage vs. collector current (II)

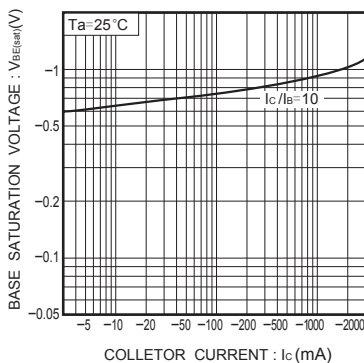


Fig.7 Base-emitter saturation voltage vs. collector current

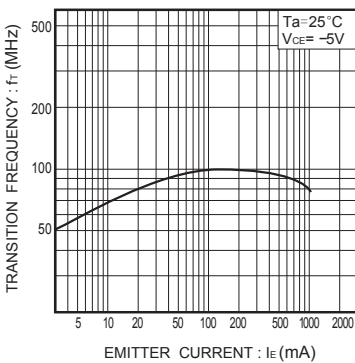


Fig.8 Gain bandwidth product vs. emitter current

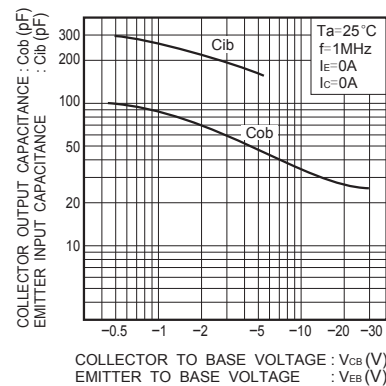


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

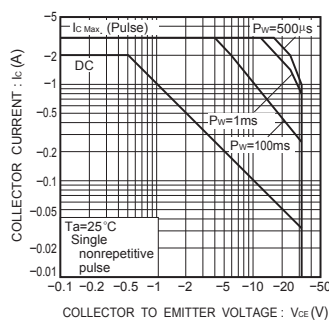


Fig.10 Safe operation area