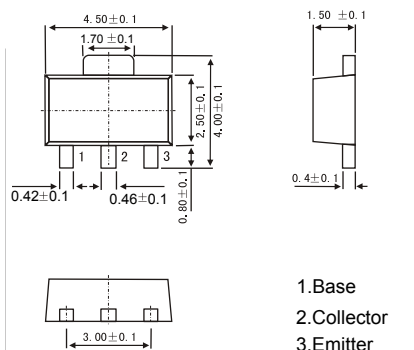


■ Features

- High V_{CE0} , $V_{CE0}=80V$
- High I_c , $I_c=1A$ (DC)
- Low $V_{CE(sat)}$
- Complementary to 2SB1260

SOT-89

Unit:mm



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	120	V
Collector - Emitter Voltage	V_{CE0}	80	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_c	1	A
Collector Current - Pulse	I_{CP}	2	
Collector Power Dissipation	P_c	0.5	W
		2	
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = 100 \mu A, I_E = 0$	120			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = 1 mA, I_B = 0$	80			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_c = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 100 V, I_E = 0$			1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 4V, I_c = 0$			0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500 mA, I_B = 50 mA$		0.15	0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500 mA, I_B = 50 mA$			1.2	
DC current gain	h_{FE}	$V_{CE} = 3V, I_c = 500 mA$	120		390	
Collector Output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		20		pF
Transition frequency	f_T	$V_{CE} = 10V, I_E = -50mA, f = 100MHz$		100		MHz

■ Classification of h_{FE}

Type	2SD1898-Q	2SD1898-R
Range	120-270	180-390
Marking	DF Q*	DF R*

Typical Characteristics

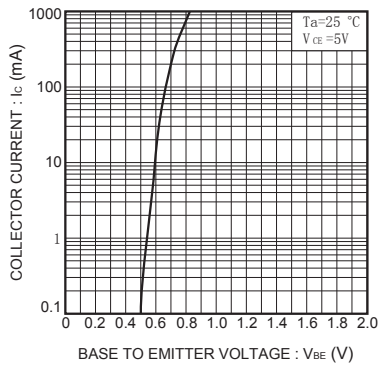


Fig.1 Grounded emitter propagation characteristics

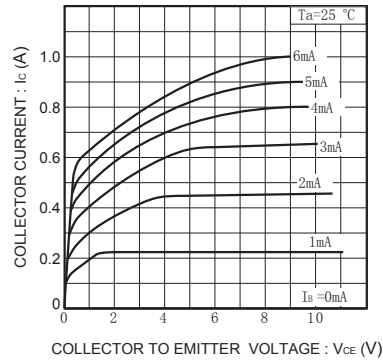


Fig.2 Grounded emitter output characteristics

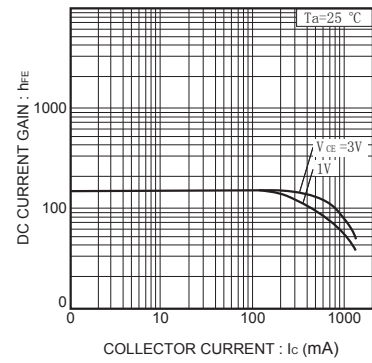


Fig.3 DC current gain vs. collector current

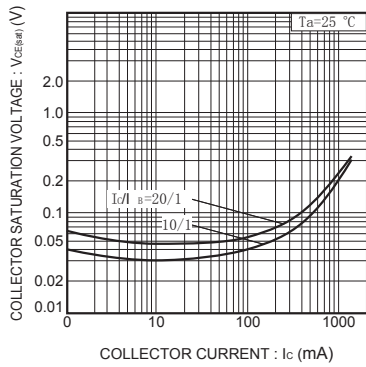


Fig.4 Collector-emitter saturation voltage vs. collector current

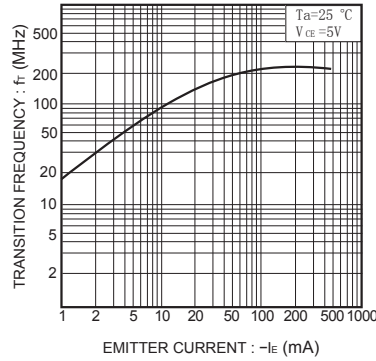


Fig.5 Gain bandwidth product vs. emitter current

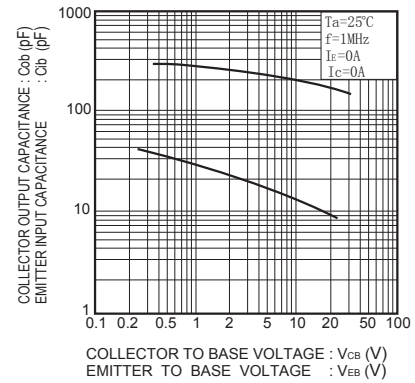


Fig.6 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

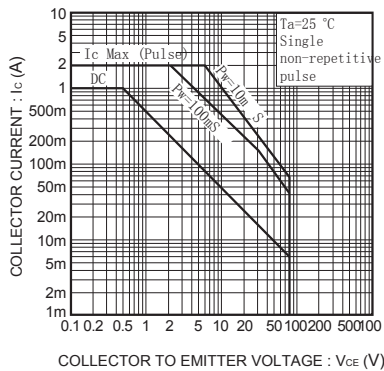


Fig.7 Safe operating area (2SD1898)