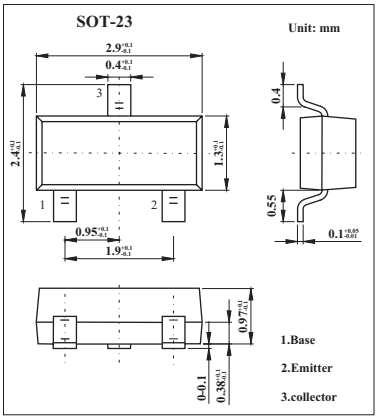
Medium Power Transistor
2SC4097



Features

- High $I_{CMax.}$
  $I_{CMax.}$ = 0.5A
- Low $V_{CE(sat)}$.
  Optimal for low voltage operation.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage	V_{CEO}	32	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	0.5	A
Collector power dissipation	P_C	0.2	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base voltage	V_{CBO}	I_C = 100μA	40			V
Collector-emitter voltage	V_{CEO}	I_C = 1mA	32			V
Emitter-base voltage	V_{EBO}	I_E = 100μA	5			V
Collector cutoff current	I_{CBO}	V_{CB} = 20V			1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 4V			1	μA
DC Current Gain	h_{FE}	V_{CE} = 3V, I_C = 10mA	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C/I_B = 500mA/50mA			0.6	V
Output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0A, f = 1MHz		6.5		pF
Transition frequency	f_T	V_{CE} = 5V, I_E = -20mA, f = 100MHz		250		MHz

h_{FE} Classification

Marking	CQ	CR
h_{FE}	120～270	180～390

2SC4097

■ Typlcal Characteristics

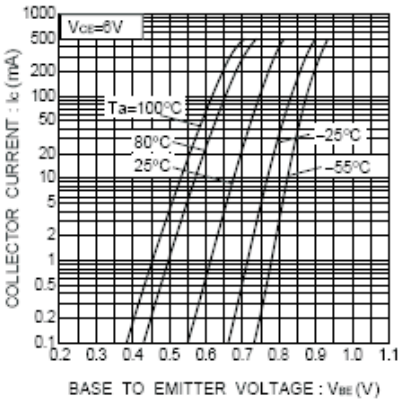


Fig.1 Grounded Emitter Propagation Characteristics

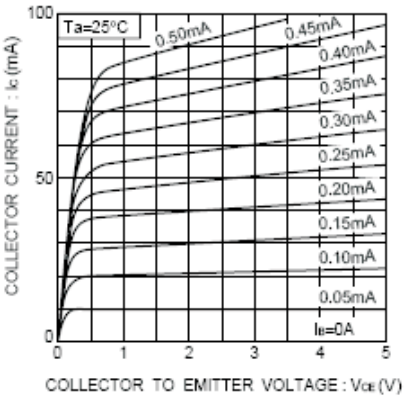


Fig.2 Grounded Emitter Output Characteristics

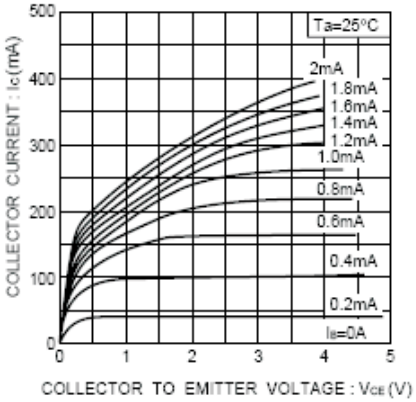


Fig.3 Grounded Emitter Output Characteristics

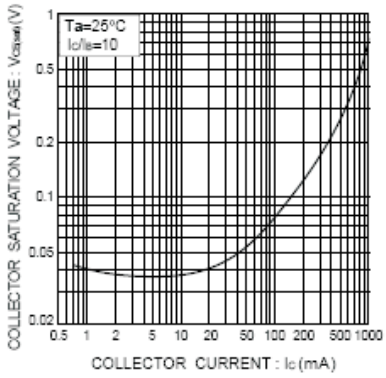


Fig.4 Collector-Emitter Saturation Voltage vs. Collector Current

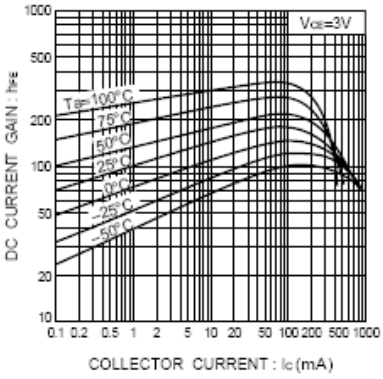


Fig.5 DC Current Gain vs. Collector Current

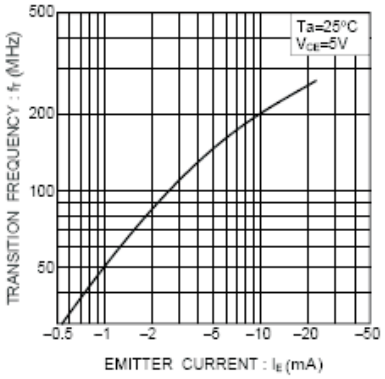


Fig. 6 Gain Bandwidth Product vs. Emitter Current

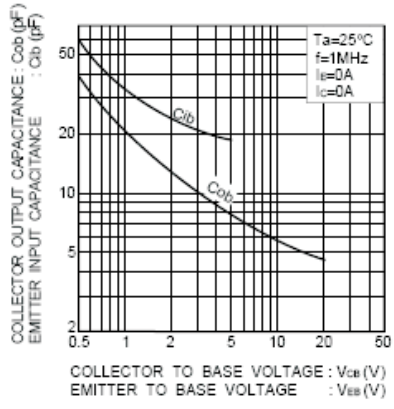


Fig.7 Collector Output Capacitance vs. Collector-Base Voltage
Emitter Input Capacitance vs. Emitter-Base Voltage