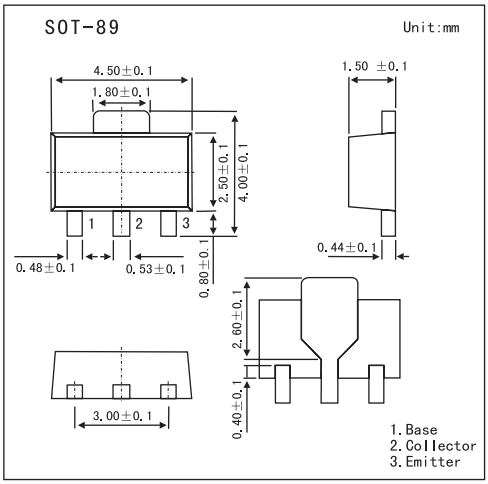
Medium Power Transistor

2SC5053



■ Features

- Low saturation voltage, typically $V_{CE(sat)}$ = 0.12V at I_C / I_B = 500mA / 50mA.
- P_C=2W (on 40□40□0.7mm ceramic board).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-60	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-1	A
	I_C (Pulse) *1	-2	A
Collector power dissipation	P_C	0.5	W
	P_C *2	2	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1. Single pulse, Pw=100ms, duty=1/2.

*2. 40X40X0.7mm Ceramic board.

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base voltage	BV_{CBO}	I_C=-50μA	-60			V
Collector-emitter voltage	BV_{CEO}	I_C=-1mA	-50			V
Emitter-base voltage	BV_{EBO}	I_E=-50μA	-5			V
Collector cutoff current	I_{CBO}	V_{CB}=-40V			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB}=-4V			-0.5	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA,I_B=-50mA			-0.4	V
Forward current transfer ratio	h_{FE}	V_{CE}=-3V,I_C=-0.5A	120		270	
Transition frequency	f_T	V_{CE}=-5V, I_E= 50mA, f=100MHz		150		MHz
Output capacitance	C_{ob}	V_{CB}=-10V, I_E=0A, f=1MHz		20		pF

■ h_{FE} Classification

Marking	CG
Rank	QR