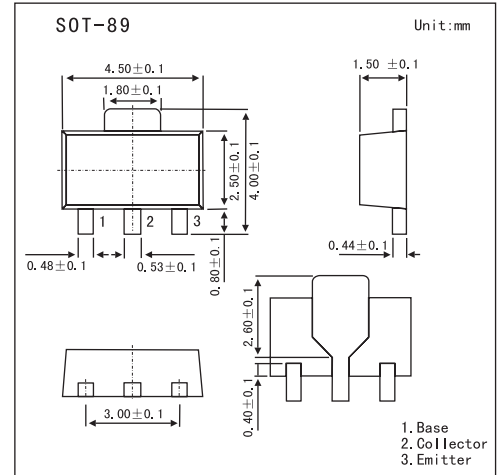


Medium Power Transistor

2SC5053

■ Features

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

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-60	V
Collector-emitter voltage	V_{CE0}	-50	V
Emitter-base voltage	V_{EB0}	-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	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

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

*2. $40 \times 40 \times 0.7mm$ Ceramic board.

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base voltage	BV_{CB0}	$I_C = -50\mu A$	-60			V
Collector-emitter voltage	BV_{CE0}	$I_C = -1mA$	-50			V
Emitter-base voltage	BV_{EB0}	$I_E = -50\mu A$	-5			V
Collector cutoff current	I_{CB0}	$V_{CB} = -40V$			-0.1	μA
Emitter cutoff current	I_{EB0}	$V_{EB} = -4V$			-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

■ hFE Classification

Marking	CG
Rank	QR