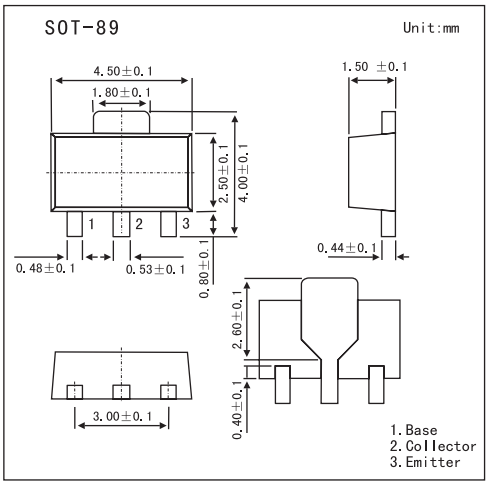
FCX1151A



■ Features

- 2W power dissipation.
- 5A peak pulse current.
- Excellent HFE characteristics up to 5 Amps.
- Extremely low saturation voltage E.g. 60mv Typ.
- Extremely low equivalent on-resistance.
  $R_{CE(sat)}$ 66mΩ at 3A.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-45	V
Collector-emitter voltage	V_{CEO}	-40	V
Emitter-base voltage	V_{EBO}	-5	V
Continuous collector current	I_{CM}	-5	A
Peak pulse current *3	I_C	-3	A
Base current	I_B	-500	mA
Power dissipation	P_{tot}	1 *1	W
		2 *2	W
Operating and storage temperature range	T_j,T_{stg}	-55 to +150	℃

*1 recommended Ptot calculated using FR4 measuring 15X15X0.6mm

*2 Maximum power dissipation is calculated assuming that the device is mounted on FR4 substrate measuring 40X40X0.6mm

*3 Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA	-45			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	I_C=-10mA	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-36V		-0.3	-100	nA
Collector Emitter Cut-Off Current	I_{CES}	V_{CE}=-32V		-0.3	-100	nA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-4V		-0.3	-100	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C=-0.1A, I_B=-1mA I_C=-0.5A, I_B=-5mA I_C=-1A, I_B=-20mA I_C=-3A, I_B=-250mA		-60 -120 -140 -200	-90 -180 -220 -300	mV
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C=-3A, I_B=-250mA		-985	-1050	mV
Base-emitter ON voltage *	$V_{BE(on)}$	I_C=-3A, V_{CE}=-2V		-850	-950	mV
Static Forward Current Transfer Ratio *	h_{FE}	I_C=-10mA,V_{CE}=-2V I_C=-0.5A,V_{CE}=-2V I_C=-2A,V_{CE}=-2V I_C=-3A,V_{CE}=-2V I_C=-5A,V_{CE}=-2V	270 250 180 100	450 400 300 190 45	800	
Transitional frequency	f_T	I_C=-50mA, V_{CE}=-10V, f=50MHz		145		MHz
Output capacitance	C_{obo}	V_{CB}=-10V, f=1MHz		40		pF
Turn-on time	$t_{(on)}$	I_C=-2A, V_{CC}=-30V		170		ns
Turn-off time	$t_{(off)}$	I_{B1}=I_{B2}=-20mA		460		ns

* Pulse test: tp = 300 μs; d ⩽ 0.02.

■ Marking

Marking	151