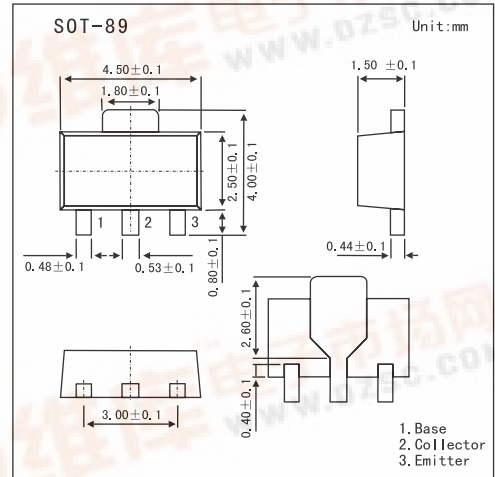


SMD Type Transistors

NPN Silicon Power Switching Transistor
FCX619

Features

- 2W power dissipation.
 - 6A peak pulse current.
 - Excellent HFE characteristics up to 6 amps.
 - Extremely low saturation voltage E.g. 13mv Typ.
 - Extremely low equivalent on-resistance.
- RCE(sat) 87mΩ at 2.75A.



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EBO}	5	V
Continuous collector current	I _{CM}	6	A
Peak pulse current	I _c	3.0	A
Base current	I _B	500	mA
Power dissipation	P _{tot}	1.5	W
Operating and storage temperature range	T _j , T _{stg}	-55 to +150	°C

FCX619

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A$	50	190		V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C=10mA$	50	65		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A$	5	8.3		V
Collector cut-off current	I_{CBO}	$V_{CB}=40V$			100	nA
Collector Emitter Cut-Off Current	I_{CES}	$V_{CE}=40V$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$			100	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C=0.1A, I_B=10mA$ $I_C=1A, I_B=10mA$ $I_C=2A, I_B=50mA$ $I_C=2.75A, I_B=100mA$		13 150 190 240	25 220 260 320	mV
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C=2.75A, I_B=100mA$		0.97	1.1	V
Base-emitter ON voltage *	$V_{BE(on)}$	$I_C=2.75A, V_{CE}=2V$		0.89	1.0	V
DC current gain *	h_{FE}	$I_C=10mA, V_{CE}=2V$ $I_C=200mA, V_{CE}=2V$ $I_C=1A, V_{CE}=2V$ $I_C=2A, V_{CE}=2V$ $I_C=6A, V_{CE}=2V$	200 300 200 100	400 450 400 200 30		
Transitional frequency	f_T	$I_C=50mA, V_{CE}=10V, f=100MHz$	100	165		MHz
Output capacitance	C_{obo}	$V_{CB}=10V, f=1MHz$		12	20	pF
Turn-on time	$t_{(on)}$	$I_C=1A, V_{CC}=10V$		170		ns
Turn-off time	$t_{(off)}$	$I_{B1}=I_{B2}=10mA$		750		ns

* Pulse test: $t_p = 300 \mu s$; $d \leq 0.02$.

■ Marking

Marking	619
---------	-----