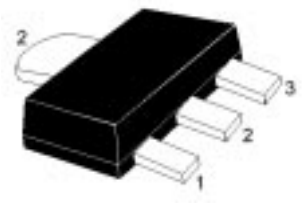
STF817A

PNP SILICON POWER TRANSISTOR

PRELIMINARY DATA

- SURFACE-MOUNTING SOT-89 PACKAGE IN TAPE & REEL



SOT-89

APPLICATIONS

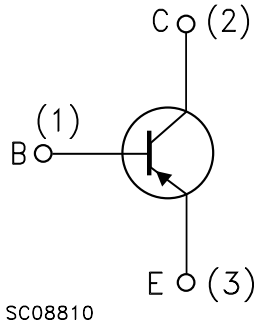
- CHARGE POWER SWITCH FOR MOBILE PHONE

DESCRIPTION

The device is manufactured using Epitaxial Planar technology.

MARKING: 817A

INTERNAL SCHEMATIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage (I_E = 0)	-30	V
V_{CEO}	Collector-Emitter Voltage (I_B = 0)	-30	V
V_{EBO}	Emitter-Base Voltage (I_C = 0)	-4	V
I_C	Collector Current	-3	A
I_{CM}	Collector Peak Current	-6	A
I_B	Base Current	-0.2	A
I_{BM}	Base Peak Current	-0.5	A
P_{TOT}	Total Dissipation at T_C = 25°C	1.8	W
T_{stg}	Storage Temperature	–65 to 150	°C
T_j	Max. Operating Junction Temperature	150	°C

THERMAL DATA

Rthj-pcb	Thermal Resistance Junction-PC Board Max	69.4	°C/W

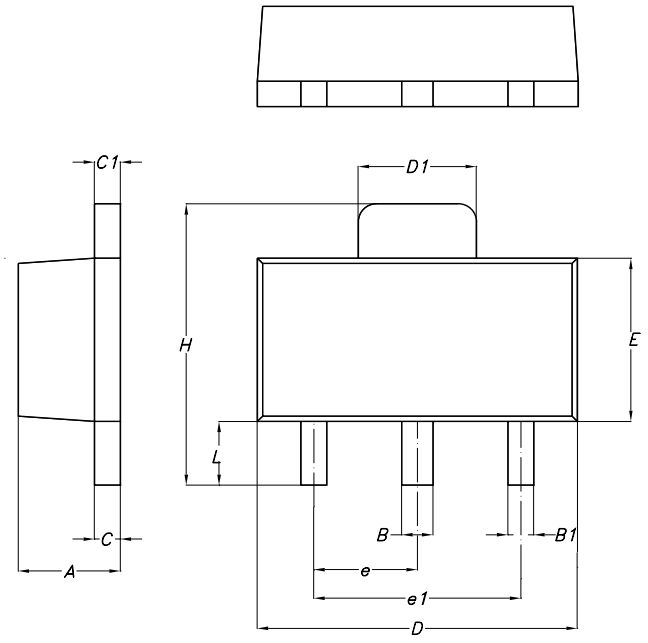
ELECTRICAL CHARACTERISTICS (T_{CASE} = 25 °C UNLESS OTHERWISE SPECIFIED)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_{CBO}	Collector Cut-off Current (I_E = 0)	V_{CB} = -30 V V_{CB} = -30 V, T_C = 125 °C			-0.1 -20	µA µA
I_{EBO}	Emitter Cut-off Current (I_C = 0)	V_{BE} = -4 V			-0.1	µA
$V_{(BR)CEO}$*	Collector-Emitter Breakdown Voltage (I_B = 0)	I_C = -10 mA	-30			V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C = -0.7 A, I_B = -20 mA		-0.24	-0.3	V
$V_{BE(sat)}$*	Base-Emitter Saturation Voltage	I_C = -0.7 A, I_B = -20 mA			-1.2	V
h_{FE}	DC Current Gain	I_C = -0.5 A, V_{CE} = -1 V	100			

* Pulsed: Pulse duration = 300 µs, duty cycle 1.5%

SOT-89 MECHANICAL DATA

DIM.	mm			mils		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	1.4		1.6	55.1		63.0
B	0.44		0.56	17.3		22.0
B1	0.36		0.48	14.2		18.9
C	0.35		0.44	13.8		17.3
C1	0.35		0.44	13.8		17.3
D	4.4		4.6	173.2		181.1
D1	1.62		1.83	63.8		72.0
E	2.29		2.6	90.2		102.4
e	1.42		1.57	55.9		61.8
e1	2.92		3.07	115.0		120.9
H	3.94		4.25	155.1		167.3
L	0.89		1.2	35.0		47.2



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