

**TO-126C Plastic-Encapsulate Transistors****2SC3807** TRANSISTOR (NPN)**FEATURES**

Power dissipation

 P_{CM} : 1.25 W ($T_{amb}=25^{\circ}C$)

Collector current

 I_{CM} : 2 A

Collector-base voltage

 $V_{(BR)CBO}$: 30 V

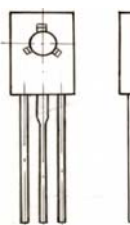
Operating and storage junction temperature range

 T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$ **TO-126C**

1. EMITTER

2. COLLECTOR

3. BASE



1 2 3

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	15			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=10V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=500mA$	800		3200	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=1A$	600			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1A, I_B=20mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1A, I_B=20mA$			1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA$		260		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		27		pF
Fall time	t_f	$V_{CC}=10V, I_C=0.7A$ $I_{B1}=-I_{B2}=0.1A$			0.1	μS
Storage time	t_s				1.35	μS

Typical Characteristics

2SC3807

