

### 2SC3807 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

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

Collector current

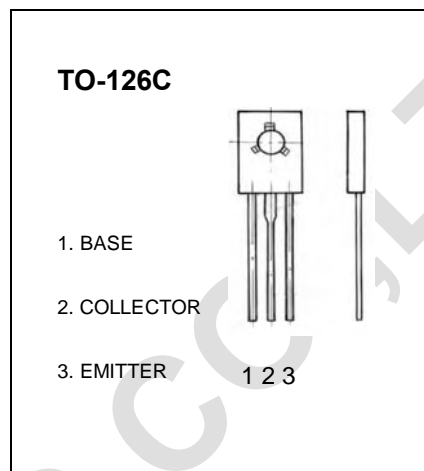
$I_{CM}$ : 2 A

Collector-base voltage

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

Operating and storage junction temperature range

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



#### 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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=10V, I_C=0$			0.1	$\mu A$
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	$\mu S$
Storage time	$t_s$				1.35	$\mu S$

