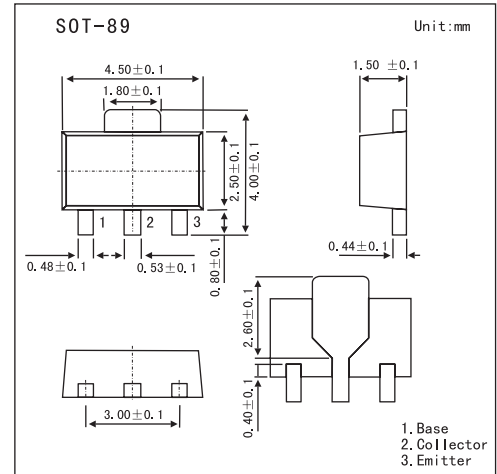


## Small Signal Transistor

## 2SC3728

## ■ Features

- High  $h_{FE}=150$  to 800.
- High collector current ( $I_C=2A$ ).
- High collector dissipation  $P_C=500mW$ .
- Low  $V_{CE(sat)}$ :  $V_{CE(sat)}=0.17V$  typ(@ $I_C=1A, I_B=50mA$ ).
- Small package for mounting.

■ Absolute Maximum Ratings  $T_a = 25^\circ C$ 

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	20	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector-emitter voltage	$V_{CEO}$	12	V
Peak collector current	$I_{CM}$	3	A
Collector current	$I_C$	2	A
Collector dissipation ( $T_a=25^\circ C$ )	$P_C$	500	mW
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

■ Electrical Characteristics  $T_a = 25^\circ C$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=5mA, R_{BE}=\infty$	12	14	16	V
Collector cutoff current	$I_{CBO}$	$V_{CB}=16V, I_E=0$			0.1	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=4V, I_C=100mA$	150	350	800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1A, I_B=50mA$		0.2	0.35	V
Gain bandwidth product	$f_T$	$V_{CE}=2V, I_E=-10mA$	40	80		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$		28		pF

■  $h_{FE}$  Classification

Marking	YE	YF	YG
$h_{FE}$	150~300	250~500	400~800