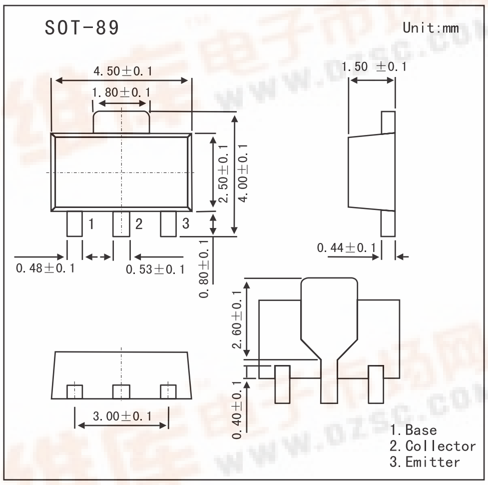
Small Signal Transistor

2SC3728



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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 (Ta=25℃)	P_C	500	mW
Jumction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Colllector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	6			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=5mA,R_{BE}=∞	12	14	16	V
Collector cutoff current	I_{CBO}	V_{CB}=16V,I_E=0			0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB}=4V,I_C=0			0.1	μA
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
hFE	150～300	250～500	400～800