

DESCRIPTION

2SC3728 is a silicon NPN epitaxial type transistor. There is a built-in zener diode between collector to emitter.

FEATURE

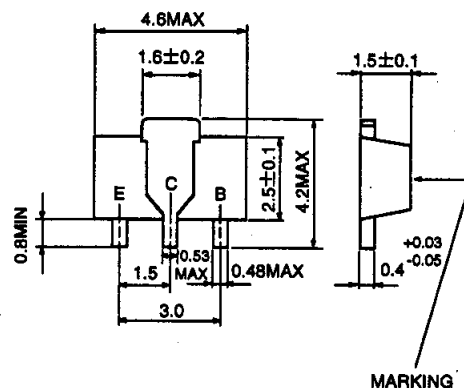
- High h_{FE} $h_{FE}=150$ to 800
- High collector current ($I_C=2A$)
- Low collector to emitter saturation voltage
 $V_{CE(sat)}=0.17V$ typ (@ $I_C=1A$, $I_B=50mA$)
- High collector dissipation $P_C=500mW$
- Small package for mounting

APPLICATION

Camera shutter, solenoid drive circuit.

OUTLINE DRAWING

Unit:mm

**TERMINAL CONNECTOR**

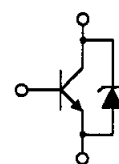
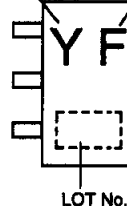
E : EMITTER
C : COLLECTOR EIAJ : SC-82
B : BASE JEDEC : -

Note)

The dimension without tolerance represent central value.

MAXIMUM RATINGS ($T_a=25^\circ C$)

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

MARKINGTYPE NAME h_{FE} ITEM**ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)**

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10\mu A, I_E=0$	20			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10\mu A, I_C=0$	6			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=5mA, R_{BE}=\infty$	12	14	16	V
I_{CBO}	Collector cut off current	$V_{CB}=16V, I_E=0$			0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=4V, I_C=0$			0.1	μA
h_{FE}^*	DC forward current gain	$V_{CE}=4V, I_C=100mA$	150	350	800	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=1A, I_B=50mA$		0.2	0.35	V
f_T	Gain band width product	$V_{CE}=2V, I_E=-10mA$	40	80		MHz
C_{ob}	Collector output capacitance	$V_{CB}=10V, I_E=0, f=1MHz$		28		pF

* : It shows h_{FE} classification in right table.

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



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