

# PFS

## SEMICONDUCTOR TECHNICAL DATA

### C9012

GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

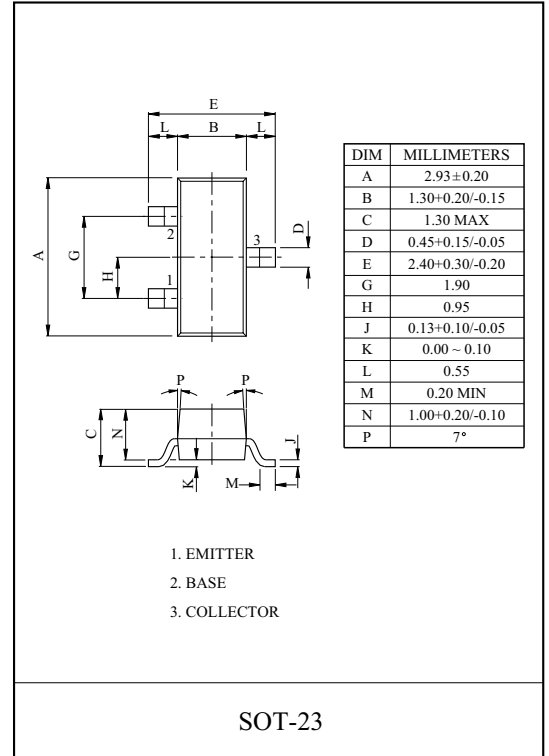
#### FEATURES

- Excellent  $h_{FE}$  Linearity.
- Complementary to KTC9013S.

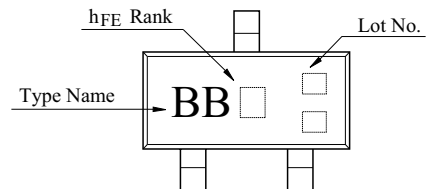
#### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-40	V
Collector-Emitter Voltage	$V_{CEO}$	-30	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-500	mA
Emitter Current	$I_E$	500	mA
Collector Power Dissipation	$P_C$ *	350	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C

\*  $P_C$  : Package Mounted On 99.5% Alumina (10 × 8 × 0.6mm)



#### Marking



#### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=-35V, I_E=0$	-	-	-0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=-5V, I_C=0$	-	-	-0.1	$\mu A$
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=-1V, I_C=-50mA$	96	-	246	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-10mA$	-	-0.1	-0.25	V
Base-Emitter Voltage	$V_{BE}$	$I_C=-100mA, V_{CE}=-1V$	-	-0.8	-1.0	V
Transition Frequency	$f_T$	$V_{CE}=-6V, I_C=-20mA, f=100MHz$	150	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-6V, I_E=0, f=1MHz$	-	7.0	-	pF

Note :  $h_{FE}$  Classification F:96 ~ 135, G:118 ~ 166, H:144 ~ 202, I:176 ~ 246