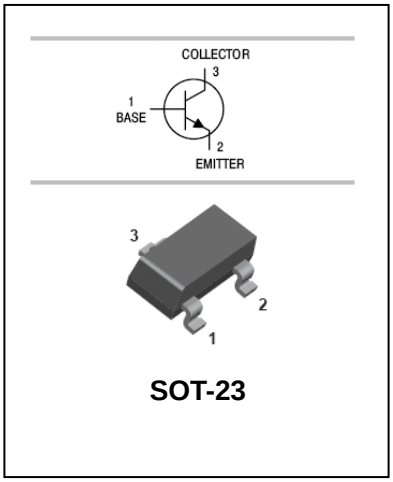
NPN Silicon Epitaxial Planar Transistor **KTC3880**

FEATURES

Lead-free

- Small reverse transfer capacitance.
- Low noise figure.



SOT-23

APPLICATIONS

- High frequency Low noise amplifier application.
- VHF band amplifier application.

ORDERING INFORMATION

Type No.	Marking	Package Code
KTC3880S	AQR/AQO/AQY	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	20	mA
I_E	Emitter Current	-20	mA
P_C	Collector Power Dissipation	150	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~150	℃

NPN Silicon Epitaxial Planar Transistor **KTC3880**

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Test conditions**	**MIN**	**TYP**	**MAX**	**UNIT**
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	4			V
Collector cut-off current	I_{CBO}	V_{CB}=18V,I_E=0			0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.5	μA
DC current gain	h_{FE}	V_{CE}=6V,I_C=1mA	40		200	
Transition frequency	f_T	V_{CE}=6V, I_C= 1mA		500		MHz
Collector output capacitance	C_{ob}	V_{CB}=6V,I_E=0,f=1MHz		1		pF
Noise figure	NF	V_{CC}=6V,I_E=1mA, f=100KHz		2.5	5.0	dB

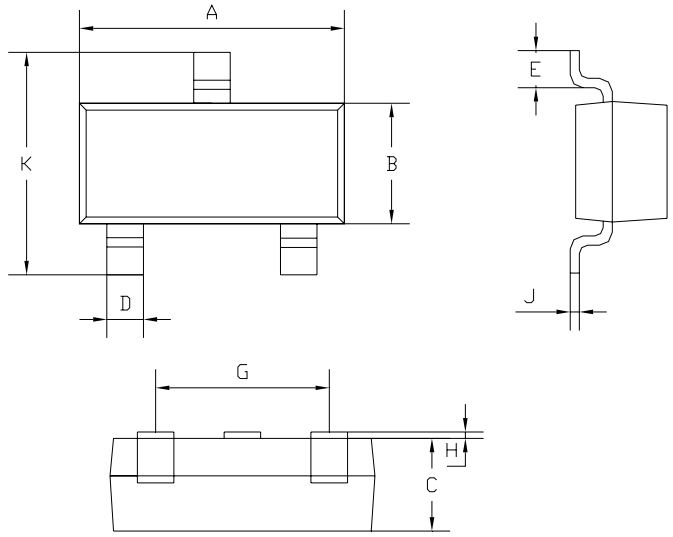
CLASSIFICATION OF h_{FE}

Rank	**R**	**O**	**Y**
Range	40-80	70-140	100-240
Marking	AQR	AQO	AQY

NPN Silicon Epitaxial Planar Transistor **KTC3880**

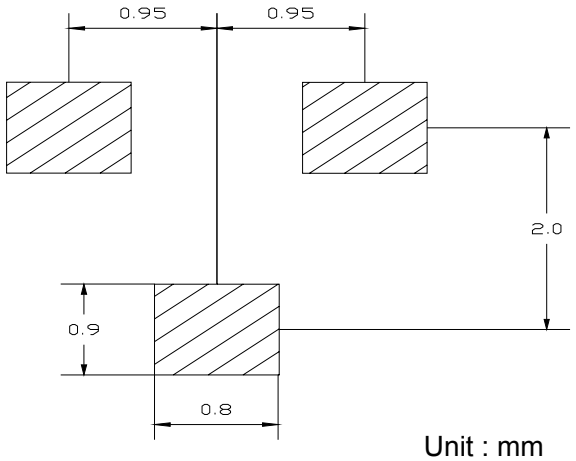
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
KTC3880S	SOT-23	3000/Tape&Reel