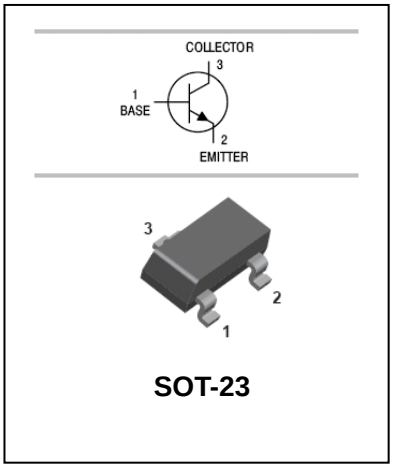
Silicon Epitaxial Planar Transistor **2SD602A**

FEATURES

Lead-free

- Complementary to 2SB710A PNP Transistor.
- Low collector to emitter saturation voltage $V_{CE(sat)}$.



SOT-23

APPLICATIONS

- General purpose amplifier applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SD602A	XQ/XR/XS	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	500	mA
I_{CP}	Peak collector current	1	A
P_C	Collector power Dissipation	200	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~150	℃

Silicon Epitaxial Planar Transistor **2SD602A**

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Test conditions**	**MIN**	**TYP**	**MAX**	**UNIT**
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=20V,I_E=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=10V,I_C=150mA V_{CE}=-10V,I_C=500mA	85 40		340	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=300mA, I_B=30mA		0.35	0.6	V
Transition frequency	f_T	V_{CB}=10V, I_E= -50mA, f=200MHz		200		MHz
Output capacitance	C_{ob}	V_{CB}=10V, I_E=0,f=1MHz		6	15	pF

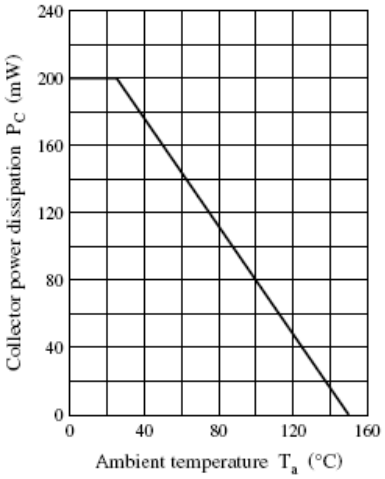
CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R	S
h_{FE1}	85-170	120-240	170-340
Marking	XQ	XR	XS

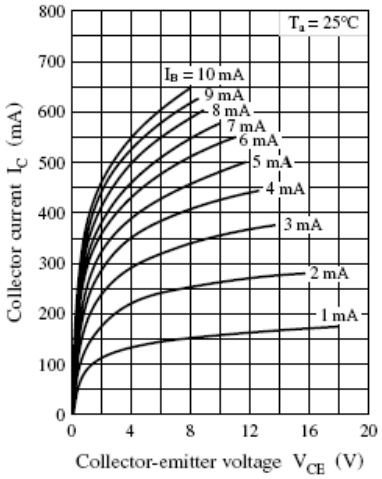
Silicon Epitaxial Planar Transistor **2SD602A**

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

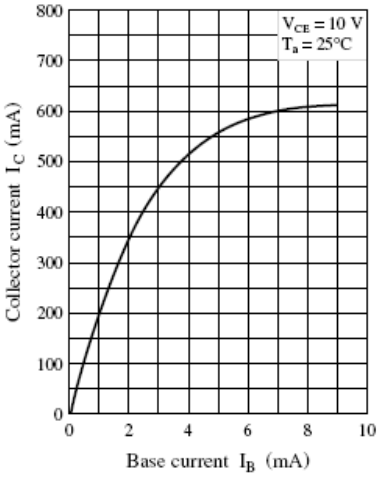
P_C — T_a



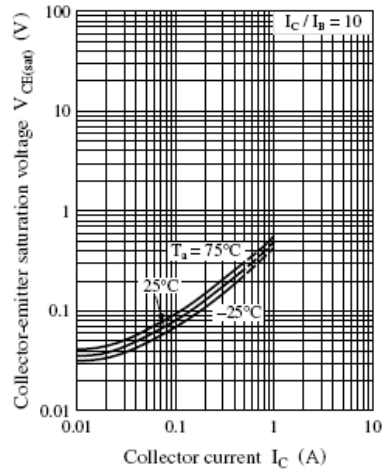
I_C — V_{CE}



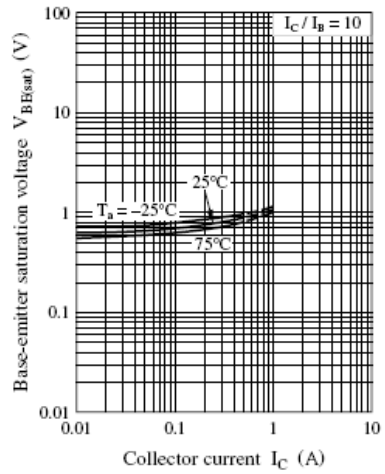
I_C — I_B



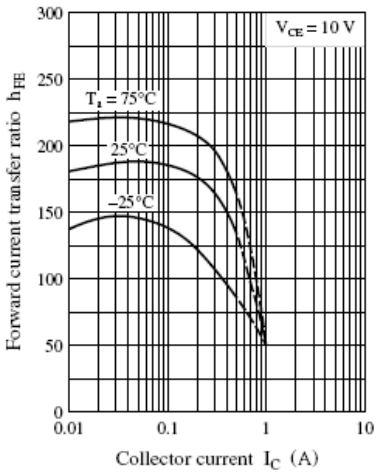
$V_{CE(sat)}$ — I_C



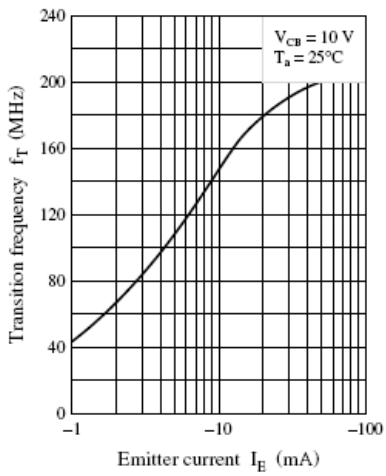
$V_{BE(sat)}$ — I_C



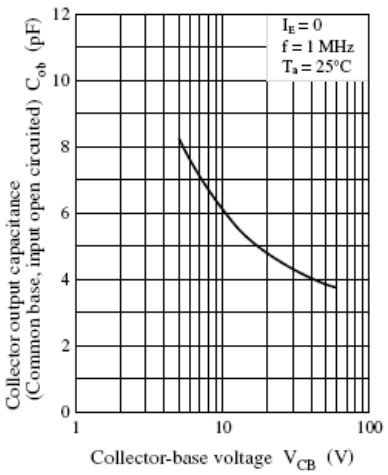
h_{FE} — I_C



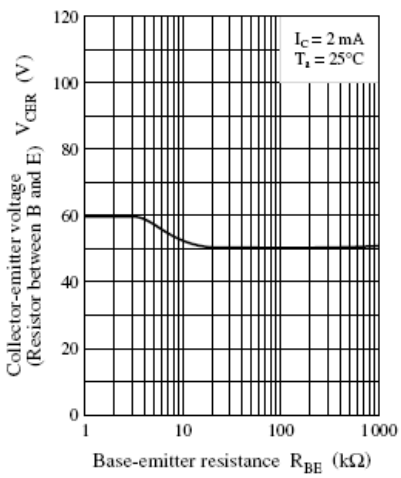
f_T — I_E



C_{ob} — V_{CB}



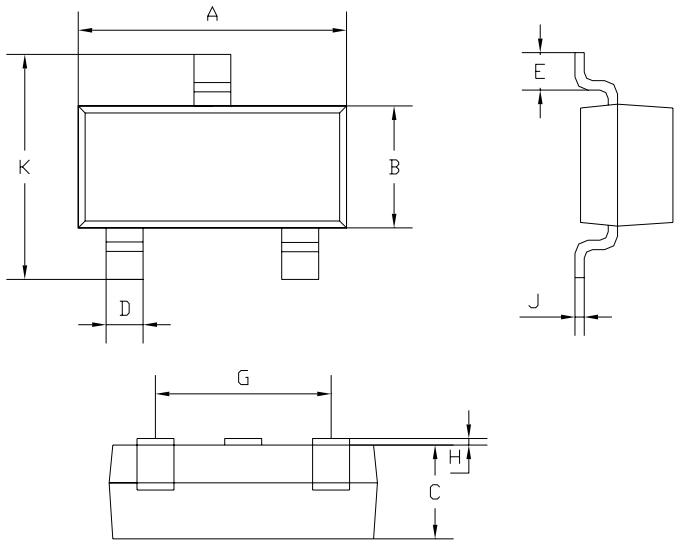
V_{CER} — R_{BE}



Silicon Epitaxial Planar Transistor **2SD602A**

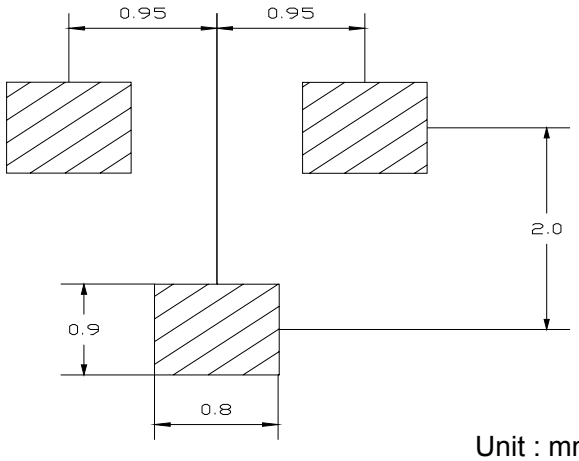
PACKAGE OUTLINE

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
2SD602A	SOT-23	3000/Tape&Reel