

RoHS Compliant Product
A suffix of "-C" specifies halogen and lead free

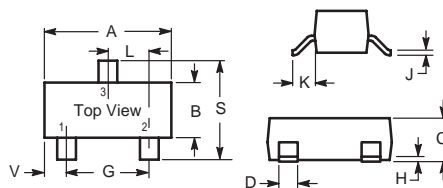
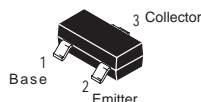
FEATURES

- For general amplification
- Complementary to 2SB710 and 2SB710A
- Low collector to emitter saturation voltage $V_{CE(sat)}$

MARKING CODE

2SD602: **WQ1, WR1, WS1**

2SD602A: **XQ, XR, XS**



SOT-23		
Dim	Min	Max
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600

All Dimension in mm

ABSOLUTE MAXIMUM RATINGS at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	30 60	V
Collector to Emitter Voltage	V_{CEO}	25 50	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Total Power Dissipation	P_C	200	mW
Junction, Storage Temperature	T_J, T_{STG}	+150, -55 ~ +150	$^\circ\text{C}$

CHARACTERISTICS at $T_a = 25^\circ\text{C}$

PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$I_C = 10 \mu\text{A}, I_E = 0$	$V_{(BR)CBO}$	30 60	-	-	V
Collector-Emitter Breakdown Voltage	$I_C = 10 \text{mA}, I_B = 0$	$V_{(BR)CEO}$	25 50	-	-	V
Emitter-Base Breakdown Voltage	$I_E = 10 \mu\text{A}, I_C = 0$	$V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current	$V_{CE} = 20\text{V}, I_B = 0$	I_{CEO}	-	-	0.1	μA
Emitter Cutoff Current	$V_{EB} = 5\text{V}, I_C = 0$	I_{EBO}	-	-	0.1	μA
Collector-Emitter Saturation Voltage (pulse test)	$I_C = 300\text{mA}, I_B = 30\text{mA}$	$V_{CE(sat)}$	-	-	0.6	V
DC Current Gain (pulse test)	$V_{CE} = 10\text{V}, I_C = 150\text{mA}$	$h_{FE(1)}$	85	-	340	
	$V_{CE} = 10\text{V}, I_C = 500\text{mA}$	$h_{FE(2)}$	40	-	-	
Transition Frequency	$V_{CE} = 10\text{V}, I_C = 50\text{mA}, f = 200\text{MHz}$	f_T	-	200	-	MHz
Output Capacitance	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	C_{OB}	-	-	15	pF

CLASSIFICATION OF h_{FE1}

Rank	Q	R	S
2SD602	85 - 170	120 - 240	170 - 340
2SD602A	85 - 170	120 - 240	170 - 340

CHARACTERISTIC CURVES

