

RoHS Compliant Product

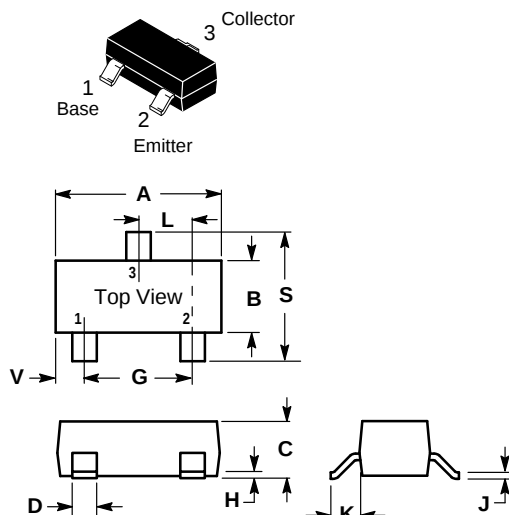
A suffix of "-C" specifies halogen & lead-free

FEATURES

Complimentary to S8550

Collector Current: $I_C=0.5A$

MARKING: J3Y



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		

MAXIMUM RATINGS ($T_A=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.5	A
P_C	Collector Dissipation	0.3	W
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55-150	$^{\circ}C$

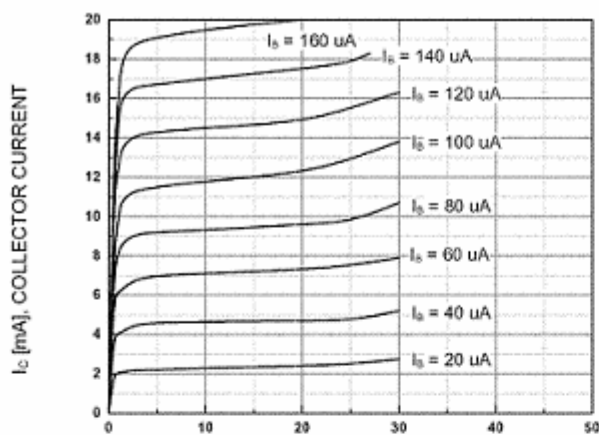
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu A$, $I_E = 0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA$, $I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A$, $I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40V$, $I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CB} = 20V$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V$, $I_C = 0$			0.1	μA
DC current gain	$H_{FE(1)}$	$V_{CE} = 1V$, $I_C = 50mA$	120		350	
	$H_{FE(2)}$	$V_{CE} = 1V$, $I_C = 500mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA$, $I_B = 50mA$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA$, $I_B = 50mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 6V$, $I_C = 20mA$ $f = 30MHz$	150			MHz

CLASSIFICATION OF $h_{FE(1)}$

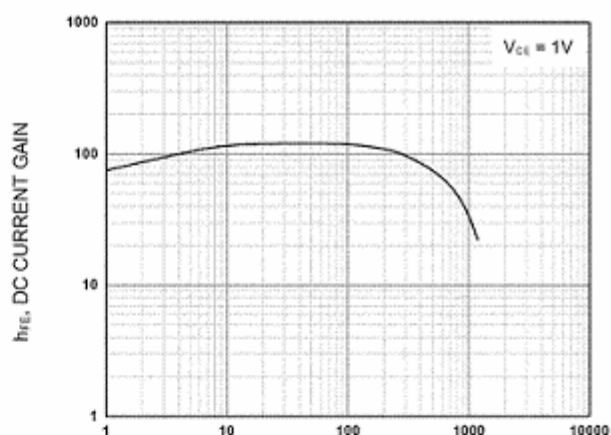
Rank	L	H
Range	120-200	200-350

Typical Characteristics



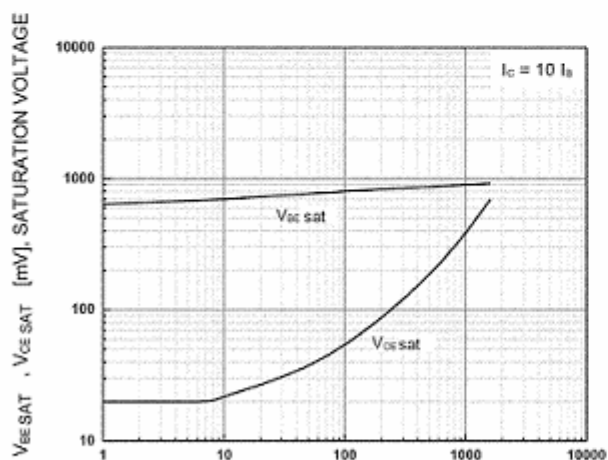
V_{CE} [V], COLLECTOR-EMITTER VOLTAGE

Static Characteristic



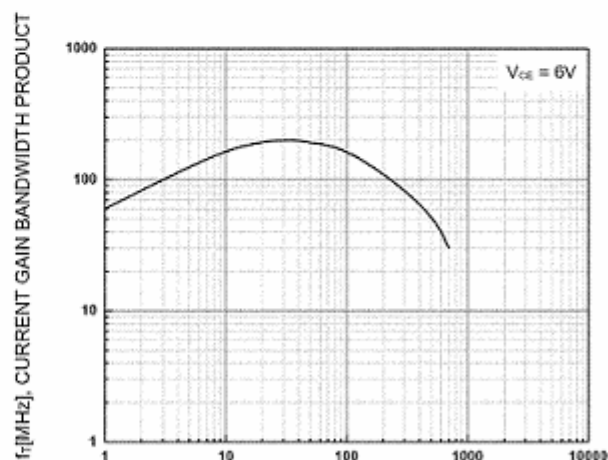
I_C [mA], COLLECTOR CURRENT

DC current Gain



I_C [mA], COLLECTOR CURRENT

Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



I_C [mA], COLLECTOR CURRENT

Current Gain Bandwidth Product