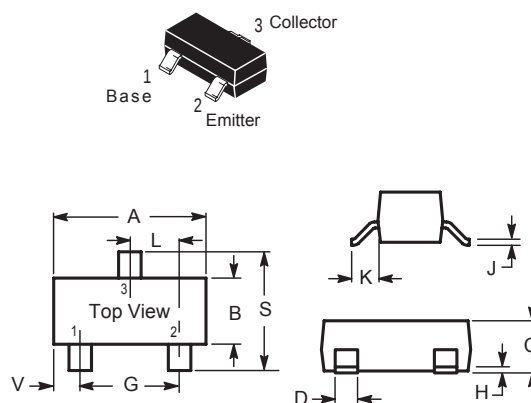


RoHS Compliant Product
A suffix of "-C" specifies halogen and lead free

FEATURES

- Complementary to 2SC945
- Collector-Base Voltage: $V_{CBO} = -60V$

PACKAGE DIMENSIONS



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

($T_A = 25^\circ C$ unless otherwise noted)

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

ELECTRICAL CHARACTERISTICS

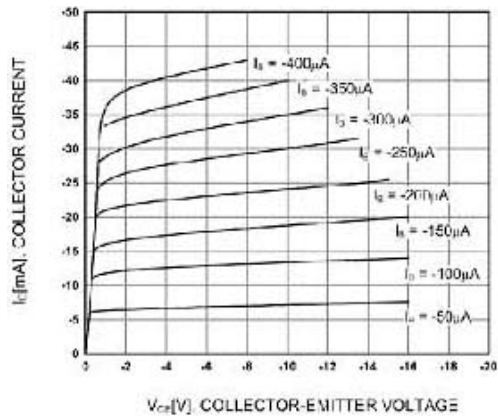
($T_{amb} = 25^\circ C$ unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-60	-	-	V	$I_C = -5\mu A, I_E = 0$
BV_{CEO}	-50	-	-	V	$I_C = -1mA, I_B = 0$
BV_{EBO}	-5	-	-	V	$I_E = -50\mu A, I_C = 0$
I_{CBO}	-	-	-100	nA	$V_{CB} = -60V, I_E = 0$
I_{EBO}	-	-	-100	nA	$V_{EB} = -5V, I_C = 0$
$V_{CE(sat)}$	-	-0.18	-0.30	V	$I_C = -100mA, I_B = -10mA$
$V_{BE(on)}$	-0.58	-0.62	-0.68	V	$V_{CE} = -6V, I_C = -1.0mA$
h_{FE}	120	-	475		$V_{CE} = -6V, I_C = -1mA$
f_T	50	-	-	MHz	$V_{CE} = -6V, I_C = -10mA$
C_{ob}	-	4.5	7	pF	$V_{CB} = -10V, I_E = 0, f = 1 MHz$
NF (noise figures)	-	6	20	dB	$V_{CE} = -6V, I_C = -0.3mA, R_g = 10k\Omega, f = 100Hz$

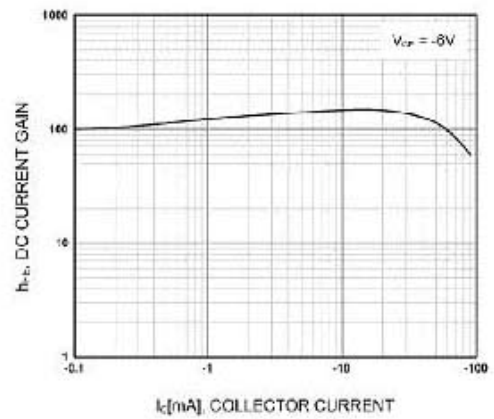
CLASSIFICATION OF h_{FE}

Rank	L	H
Range	120 - 220	220 - 475
Marking	CS	

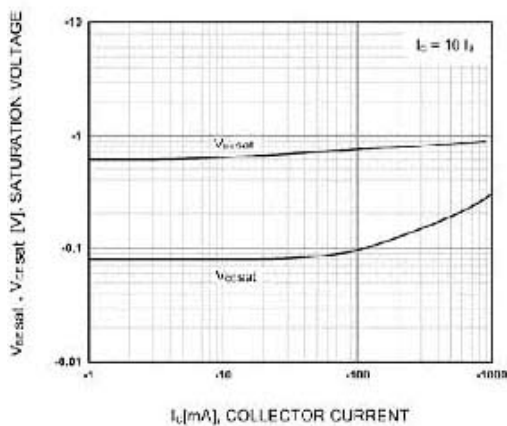
CHARACTERISTIC CURVES



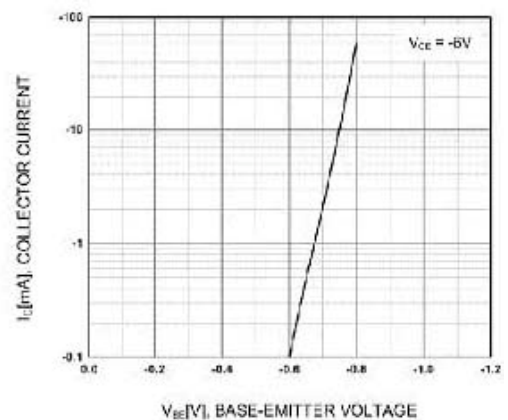
Static Characteristic



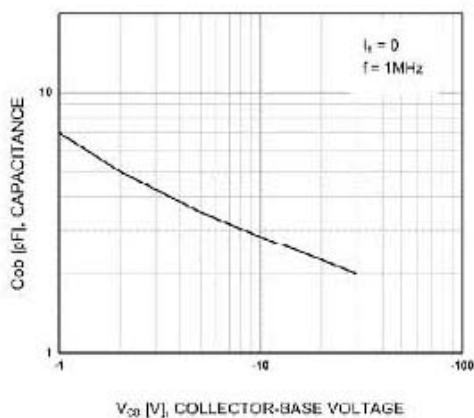
DC current Gain



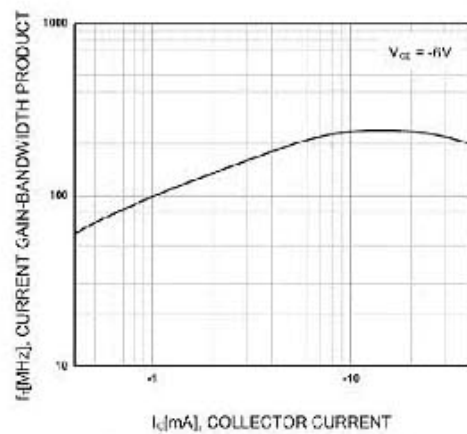
**Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**



Base-Emitter On Voltage



Collector Output Capacitance



Current Gain Bandwidth Product