

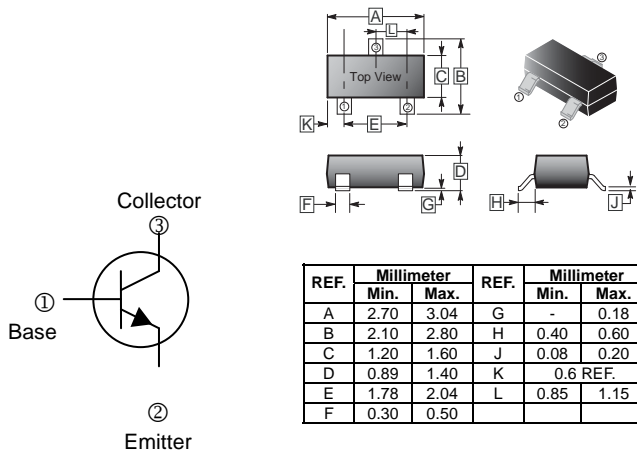
RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

**SOT-23**

**FEATURES**

- Complimentary to SS8550
- Power Dissipation  
 $P_{CM} : 0.3W$
- Collector Current  
 $I_{CM} : 1.5A$
- Collector - Base Voltage  
 $V_{(BR)CBO} : 40V$
- Operating & Storage junction temperature  
 $T_J, T_{STG} : -55^{\circ}C \sim +150^{\circ}C$

**MARKING : Y1**



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6	REF.
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			

**MAXIMUM RATINGS** (at  $T_a = 25^{\circ}C$  unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector - Base Voltage	$V_{CBO}$	40	V
Collector - Emitter Voltage	$V_{CEO}$	25	V
Emitter - Base Voltage	$V_{EBO}$	5	V
Collector Current - Continuous	$I_C$	1.5	A
Collector Power Dissipation	$P_C$	0.3	W
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55-150	$^{\circ}C$

**ELECTRICAL CHARACTERISTICS** (at  $T_a = 25^{\circ}C$  unless otherwise specified)

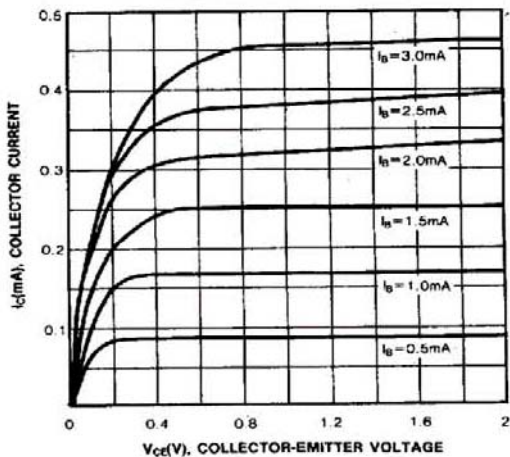
PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	MAX.	UNIT
Collector-Base Breakdown Voltage	$I_C = 100\mu A, I_E = 0$	$V_{(BR)CBO}$	40		V
Collector-Emitter Breakdown Voltage	$I_C = 0.1mA, I_B = 0$	$V_{(BR)CEO}$	25		V
Emitter-Base Breakdown Voltage	$I_E = 100\mu A, I_C = 0$	$V_{(BR)EBO}$	5		V
Collector Cut-Off Current	$V_{CB} = 40V, I_E = 0$	$I_{CBO}$		0.1	$\mu A$
Collector Cut-Off Current	$V_{CB} = 20V, I_E = 0$	$I_{CEO}$		0.1	$\mu A$
Emitter Cut-Off Current	$V_{EB} = 5V, I_C = 0$	$I_{EBO}$		0.1	$\mu A$
DC Current Gain	$V_{CE} = 1V, I_C = 100mA$	$h_{FE1}$	120	400	
	$V_{CE} = 1V, I_C = 800mA$	$h_{FE2}$	40		
Collector-Emitter Saturation Voltage	$I_C = 800mA, I_B = 80mA$	$V_{CE(sat)}$		0.5	V
Base-Emitter Saturation Voltage	$I_C = 800mA, I_B = 80mA$	$V_{BE(sat)}$		1.2	V
Transition Frequency	$V_{CE} = 10V, I_C = 50mA, f = 30MHz$	$F_T$	100		MHz

**CLASSIFICATION OF hFE**

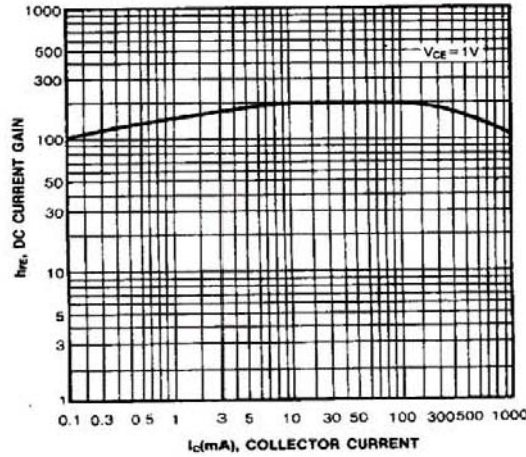
RANK	L	H	J
RANGE	120-200	200-350	300-400
MARKING	Y1		

**CHARACTERISTIC CURVES**

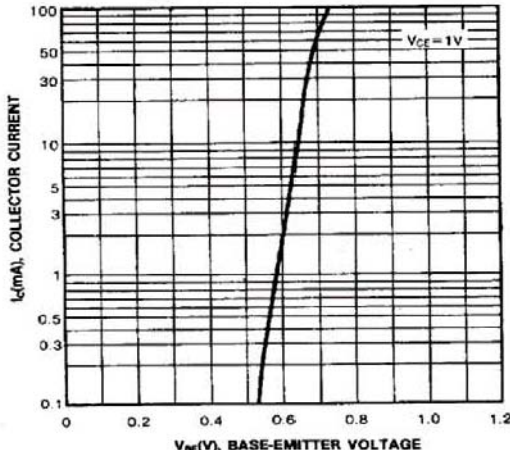
**STATIC CHARACTERISTIC**



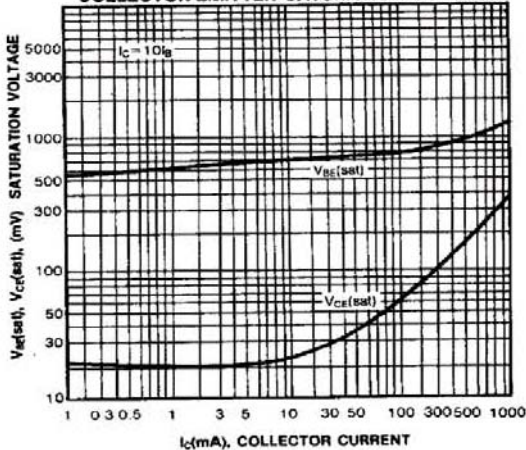
**DC CURRENT GAIN**



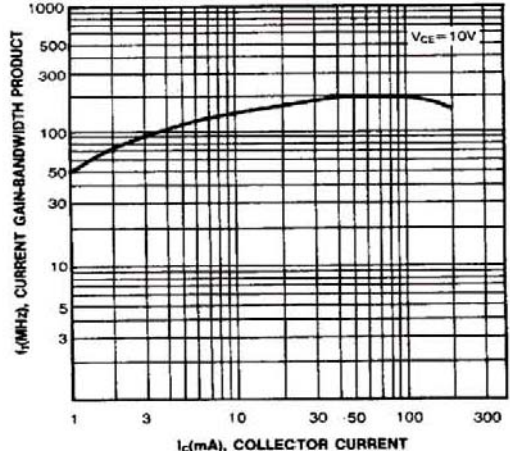
**BASE-EMITTER ON VOLTAGE**



**BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE**



**CURRENT GAIN-BANDWIDTH PRODUCT**



**COLLECTOR OUTPUT CAPACITANCE**

