

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

## FEATURES

- High DC Current gain
- Complementary to 2SB624

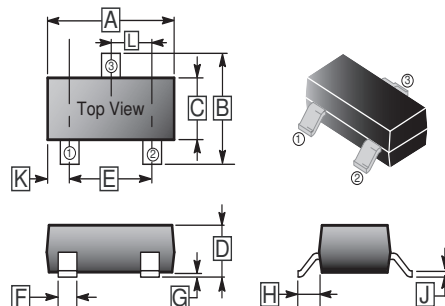
## MARKING

DV4

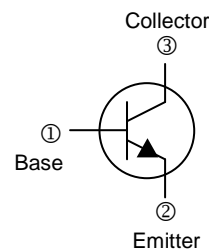
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

### SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.04	G	0.09	0.18
B	2.10	2.55	H	0.45	0.60
C	1.20	1.40	J	0.08	0.177
D	0.89	1.15	K	0.6 REF.	
E	1.78	2.04	L	0.89	1.02
F	0.30	0.50			



## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CB0}$	30	V
Collector to Emitter Voltage	$V_{CEO}$	25	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current - Continuous	$I_C$	700	mA
Collector Power Dissipation	$P_C$	200	mW
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

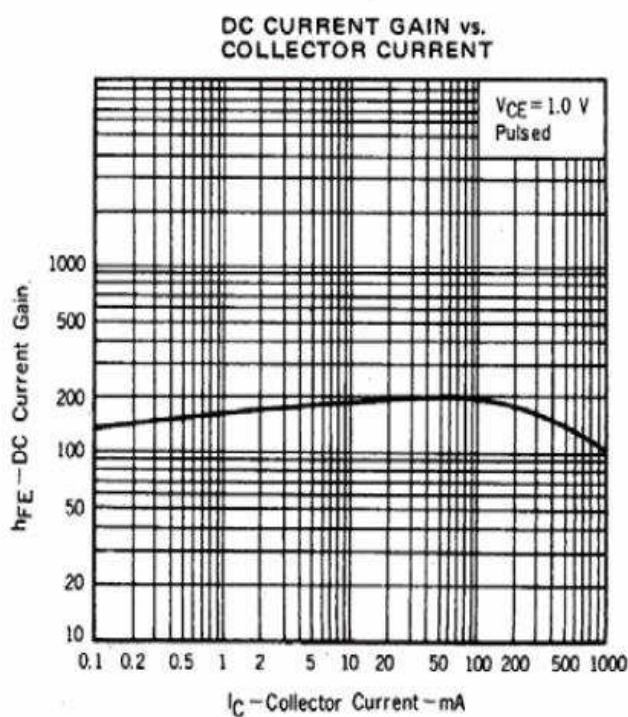
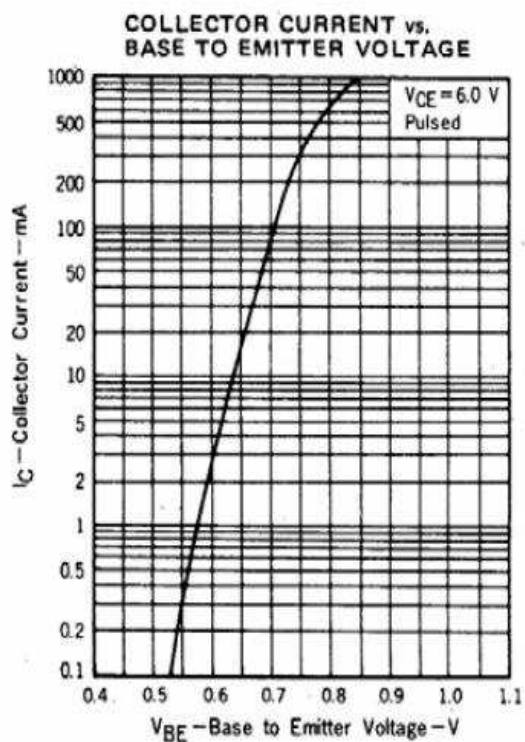
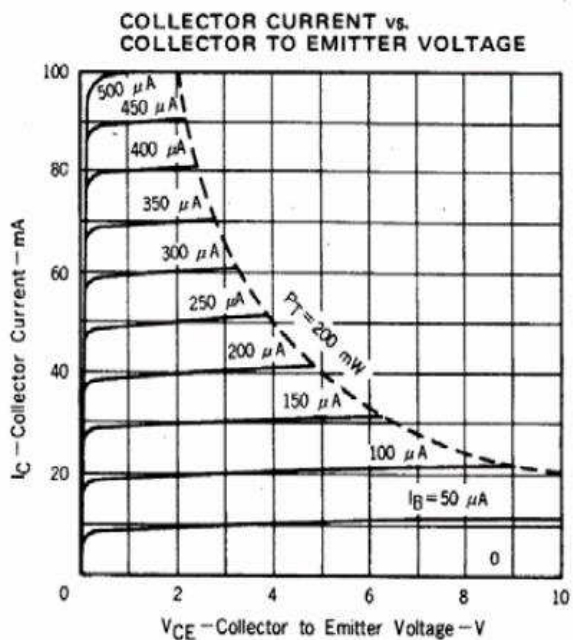
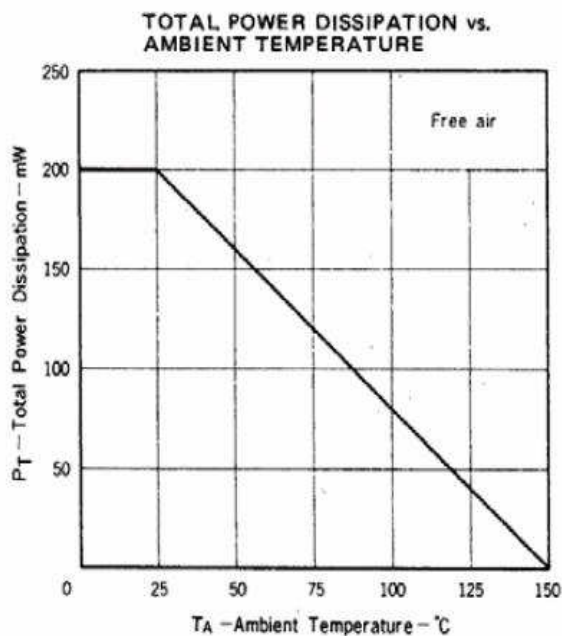
## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=100\mu\text{A}, I_C=0$
Collector Cut-Off Current	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=30\text{V}, I_E=0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain <sup>1</sup>	$h_{FE(1)}$	200	-	320		$V_{CE}=1\text{V}, I_C=100\text{mA}$
	$h_{FE(2)}$	50	-	-		$V_{CE}=1\text{V}, I_C=700\text{mA}$
Collector to Emitter Saturation Voltage <sup>1</sup>	$V_{CE(sat)}$	-	-	0.6	V	$I_C=700\text{mA}, I_B=70\text{mA}$
Base to Emitter Saturation Voltage <sup>1</sup>	$V_{BE}$	0.6	-	0.7	V	$V_{CE}=6\text{V}, I_C=10\text{mA}$
Transition Frequency	$f_T$	170	-	-	MHz	$V_{CE}=6\text{V}, I_C=10\text{mA}$
Collector output capacitance	$C_{ob}$	-	12	-	pF	$V_{CB}=6\text{V}, I_E=0, f=10\text{MHz}$

Note:

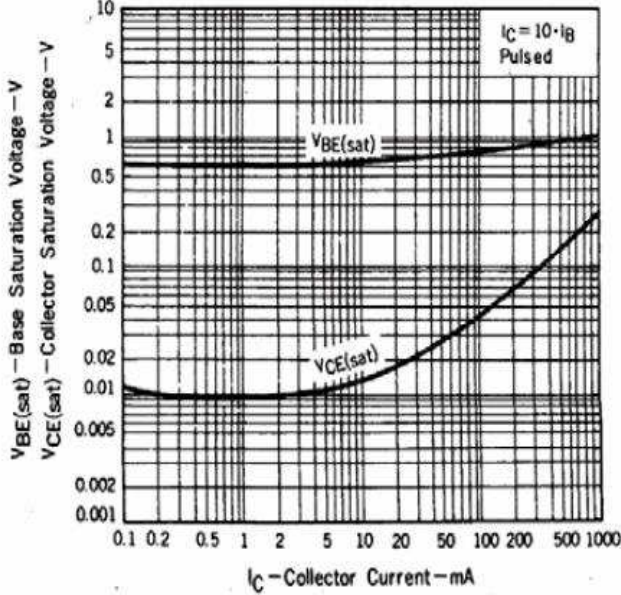
1. Pulse width  $\leq 350\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .

**CHARACTERISTIC CURVES**

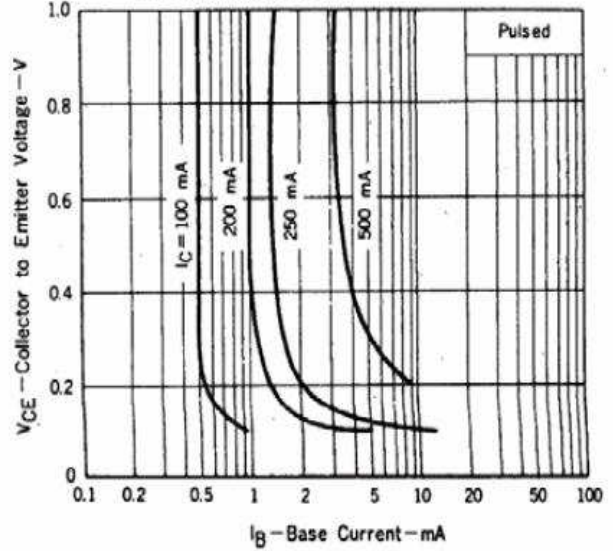


**CHARACTERISTIC CURVES**

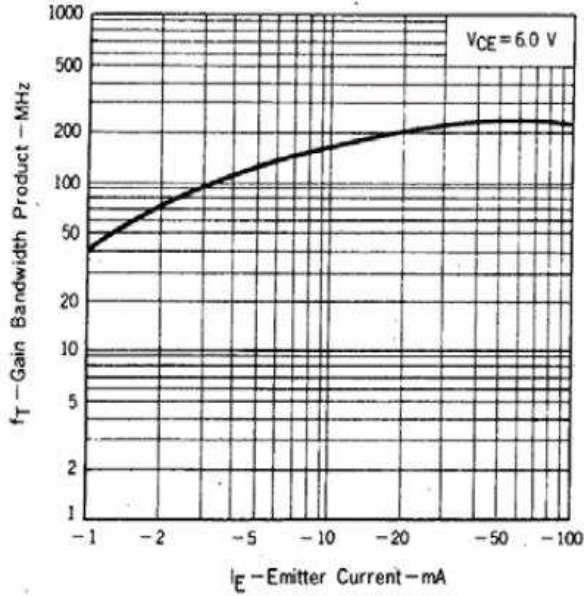
**COLLECTOR AND BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT**



**COLLECTOR TO EMITTER VOLTAGE vs. BASE CURRENT**



**GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT**



**OUTPUT CAPACITANCE vs. COLLECTOR TO BASE VOLTAGE**

