

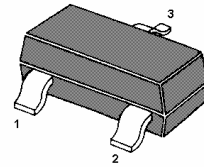
# MMBTSC5343

## NPN Silicon Epitaxial Planar Transistor

for general small signal amplifier.

The transistor is subdivided into four groups, O, Y, G and L, according to its DC current gain.

SOT-23

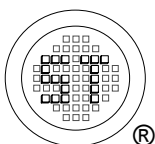


1.BASE 2.EMITTER 3.COLLECTOR

SOT-23 Plastic Package

## Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	50	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	150	mA
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 +150	$^\circ\text{C}$



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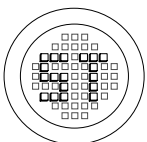


Dated : 20/10/2005

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## Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=6\text{V}$ , $I_C=1\text{mA}$					
Current Gain Group O	$h_{FE}$	70	-	140	-
Y	$h_{FE}$	120	-	240	-
G	$h_{FE}$	200	-	400	-
L	$h_{FE}$	300	-	700	-
Collector Emitter Saturation Voltage at $I_C=50\text{mA}$ , $I_B=5\text{mA}$	$V_{CE(sat)}$	-	-	400	mV
Collector Cutoff Current at $V_{CB}=30\text{V}$	$I_{CBO}$	-	-	0.5	$\mu\text{A}$
Emitter Cutoff Current at $V_{EB}=4\text{V}$	$I_{EBO}$	-	-	0.5	$\mu\text{A}$
Transition Frequency at $V_{CE}=12\text{V}$ , $I_C=2\text{mA}$	$f_T$	-	180	-	MHz
Output Capacitance at $V_{CB}=12\text{V}$ , $f=1\text{MHz}$	$C_{OB}$	-	2	-	pF
Collector Base Breakdown Voltage at $I_C=50\mu\text{A}$	$V_{(BR)CBO}$	50	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	$V_{(BR)CEO}$	50	-	-	V
Emitter Base Breakdown Voltage at $I_E=50\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Noise Figure at $V_{CE}=6\text{V}$ , $I_C=0.1\text{mA}$ , $f=1\text{KHz}$ , $R_G=10\text{K}\Omega$	NF	-	1	10	dB

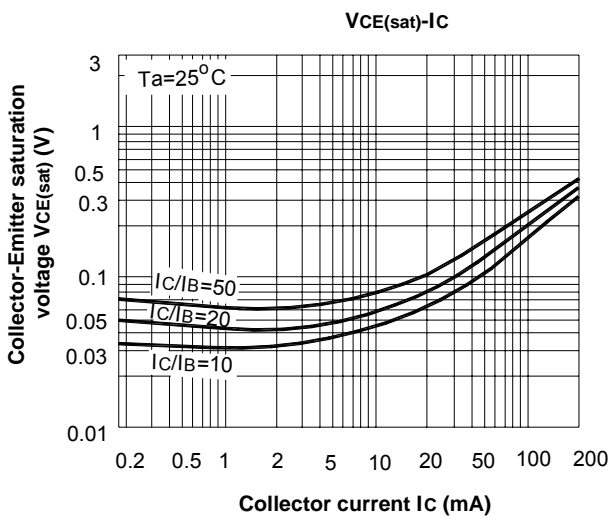
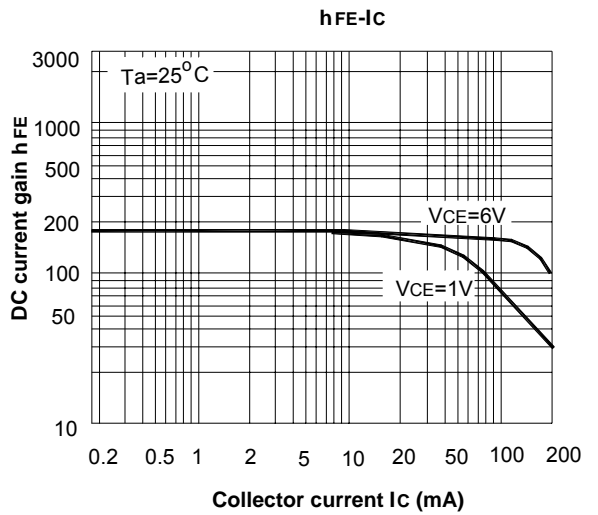
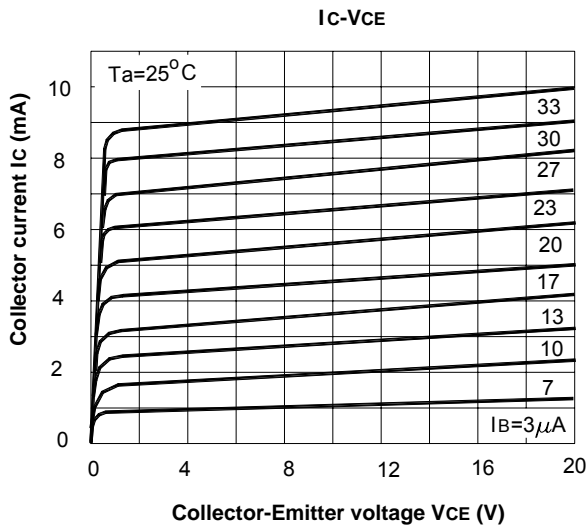
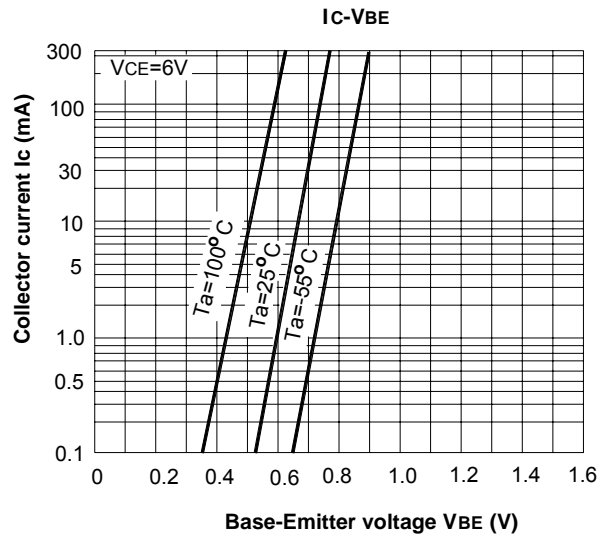
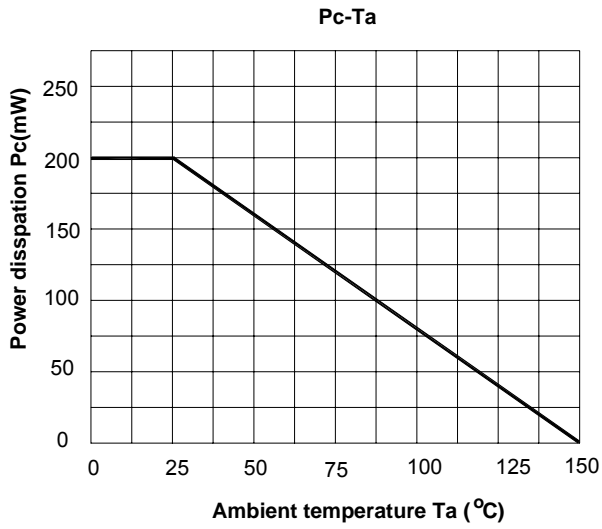


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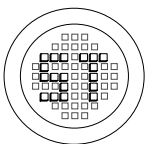


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ISO/TS 16949 : 2002  
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ISO 14001:2004  
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