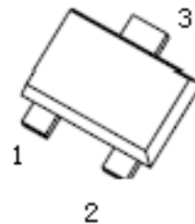
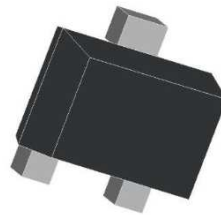


**Small Signal Product**

**PNP Bipolar Transistor**

**FEATURES**

- Epitaxial planar die construction
- Surface Mount Device Type
- Moisture sensitivity level 1
- For high voltage switching and amplifier application
- Pb free and RoHS compliant
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code
- Excellent  $h_{FE}$  linearity
- Complements the 2SC5658



**SOT-723**

1. BASE
2. EMITTER
3. COLLECTOR



**MECHANICAL DATA**

- Case: SOT-723 small outline plastic package
- Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: 260°C/10s
- Weight: 1.27mg +/- 20%

<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	LIMIT	UNIT
Collector-Base Voltage	$V_{CBO}$	-60	V
Collector-Emitter Voltage	$V_{CEO}$	-50	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current-Continuous	$I_C$	-150	mA
Collector Dissipation	$P_C$	150	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 to + 150	°C

PARAMETER	SYMBOL	MIN	TYP	MAX	TEST CONDITION	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-60			$I_{C=-50\mu A}, I_E=0$	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50			$I_{C=-1mA}, I_B=0$	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-6			$I_{E=-50\mu A}, I_C=0$	V
Collector Cut-Off Current	$I_{CBO}$			-0.1	$V_{CB=-60V}, I_E=0$	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$V_{EB=-6V}, I_C=0$	$\mu A$
DC Current Transfer Ratio	$h_{FE}$	120		560	$V_{CB=-6V}, I_C=1mA$	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	$I_{C=-50mA}, I_B=-5mA$	V
Transition Frequency	$f_T$		140		$V_{CE=-12V}, I_C=2mA, f=30MHz$	MHz
Output Capacitance	$C_{ob}$			5	$V_{CB=-12V}, I_E=0, f=1MHz$	pF

Remark:

Classification of  $h_{FE}$

Rank	Q	R	S
Range	120~270	180~390	270~560

**Small Signal Product**

<b>ORDERING INFORMATION</b>						
<b>PART NO.</b>	<b>MANUFACTURE CODE (Note)</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND CODE</b>	<b>PACKAGE</b>	<b>PACKING</b>	<b>MARKING</b>
2SA2029-Q		RM	G	SOT-723	8K / 7" Reel	FQ
2SA2029-R		RM	G	SOT-723	8K / 7" Reel	FR
2SA2029-S		RM	G	SOT-723	8K / 7" Reel	FS

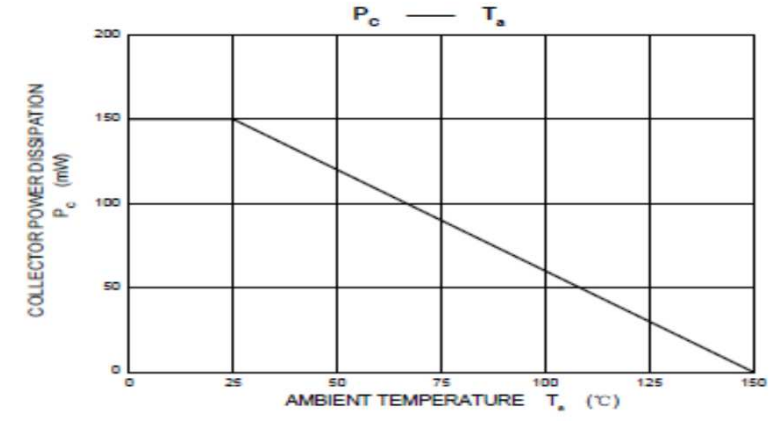
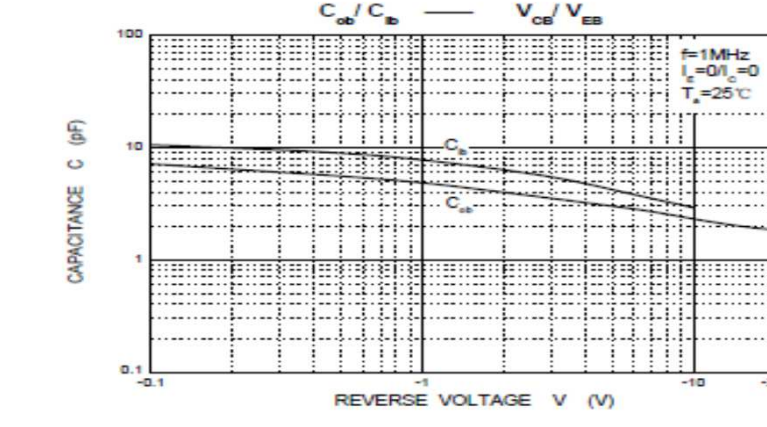
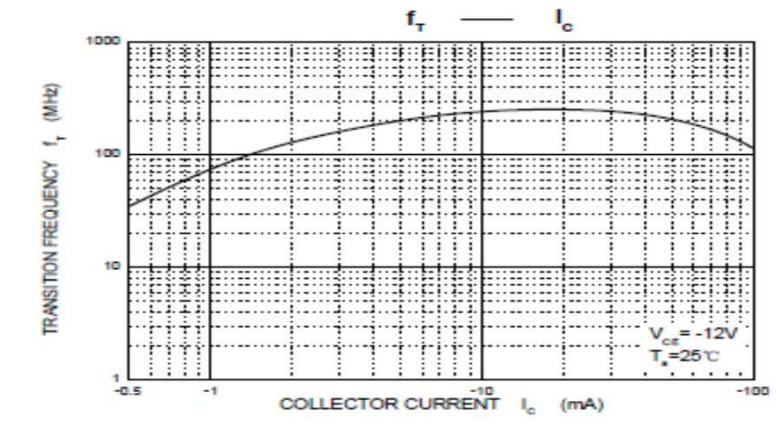
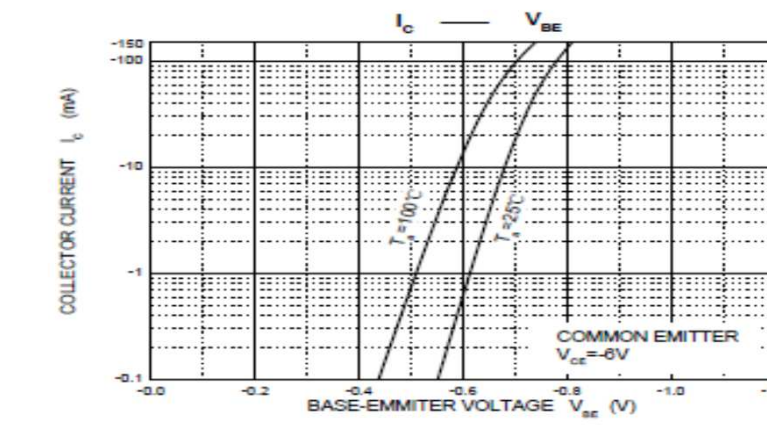
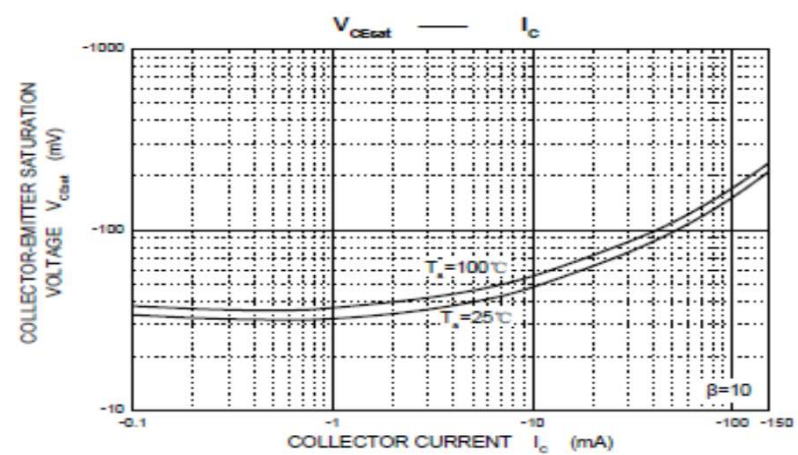
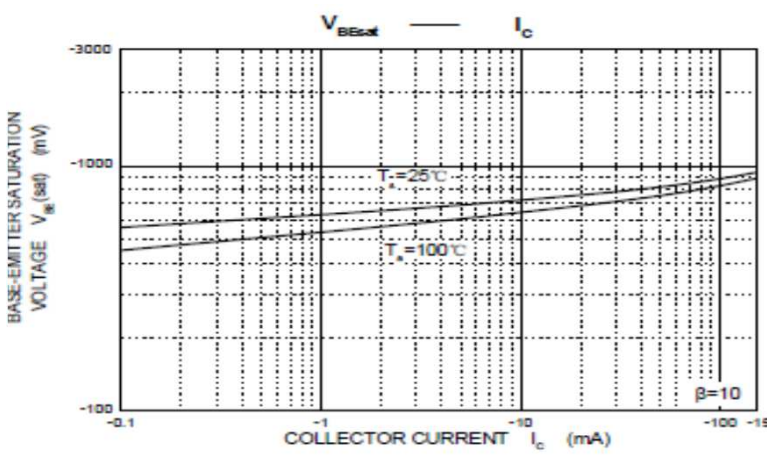
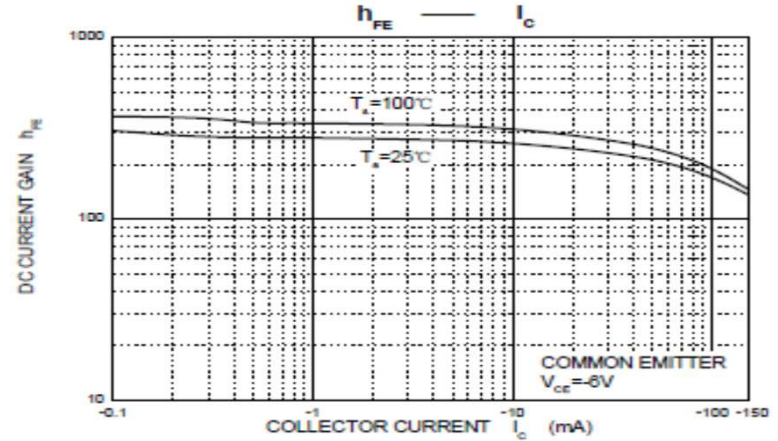
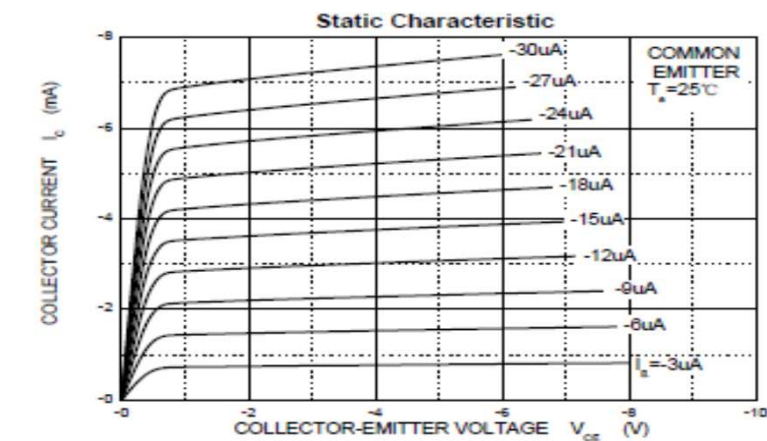
Note: Manufacture special control, if empty means no special control requirement.

<b>EXAMPLE</b>					
<b>PREFERRED P/N</b>	<b>PART NO.</b>	<b>MANUFACTURE CODE</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND CODE</b>	<b>DESCRIPTION</b>
2SA2029-Q RMG	2SA2029-Q		RM	G	Green compound
2SA2029-Q-M0 RMG	2SA2029-Q	M0	RM	G	Green compound

**Small Signal Product**

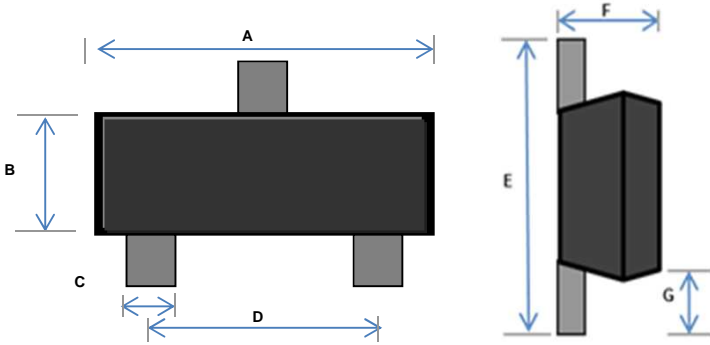
**RATINGS AND CHARACTERISTICS CURVES (2SA2029-Q/R/S)**

(TA=25°C unless otherwise noted)



**Small Signal Product**

**DIMENSIONS**  
**SOT-723**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.25	0.05	0.05
B	0.75	0.85	0.03	0.03
C	0.15	0.27	0.01	0.01
D	0.8 TYP.		0.031 TYP.	
E	1.15	1.25	0.05	0.05
F	0.43	0.55	0.02	0.02
G	0.15	0.25	0.01	0.01
H	0.25	0.37	0.01	0.01