

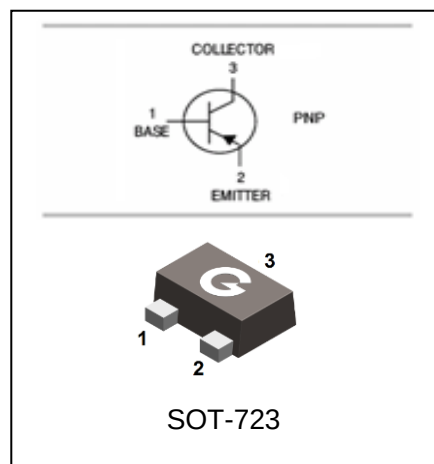
GENERAL PURPOSE TRANSISTORS (PNP)

2SA2029

FEATURES

- Excellent h_{FE} linearity
- Complements the 2SC5658
- RoHS compliant with Halogen-free

HF



ORDERING INFORMATION

Type No.	Marking	Package Code
2SA2029-Q	FQ	SOT-723
2SA2029-R	FR	SOT-723
2SA2029-S	FS	SOT-723

MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current -Continuous	-0.15	A
P_C	Collector Dissipation	150	mW
T_J, T_{STG}	Junction and Storage Temperature	-55 to +150	$^{\circ}\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu A, I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu A, I_C = 0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	120		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50mA, I_B = -5mA$			-500	mV
Transition frequency	f_T	$V_{CE} = -12V, I_C = 2mA, f = 30 MHz$		140		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -12V, I_E = 0mA, f = 1MHz$			5	pF

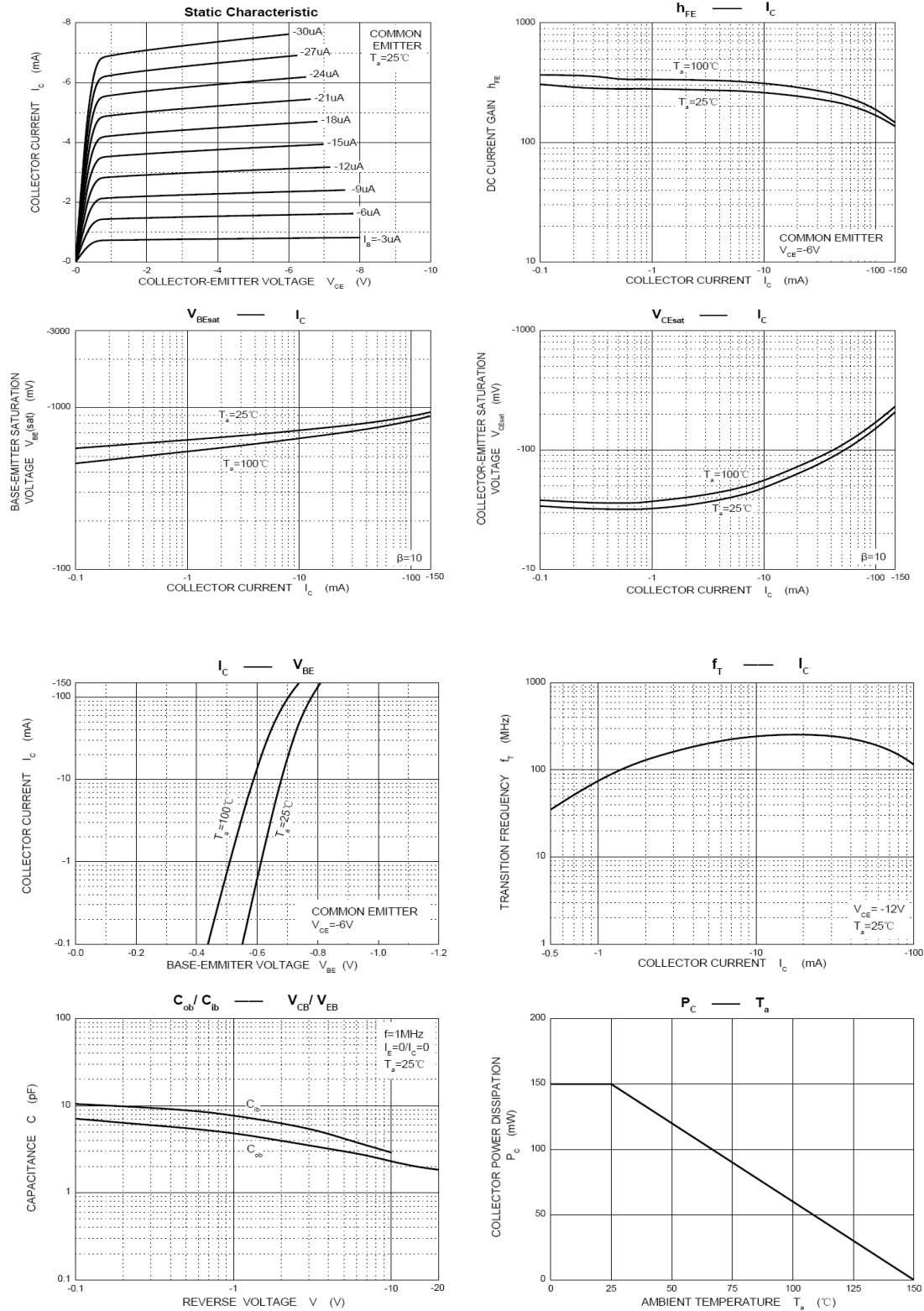
Classification of h_{fe}

Rank	Q	R	S
Range	120-270	180-390	270-560
Marking	FQ	FR	FS

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



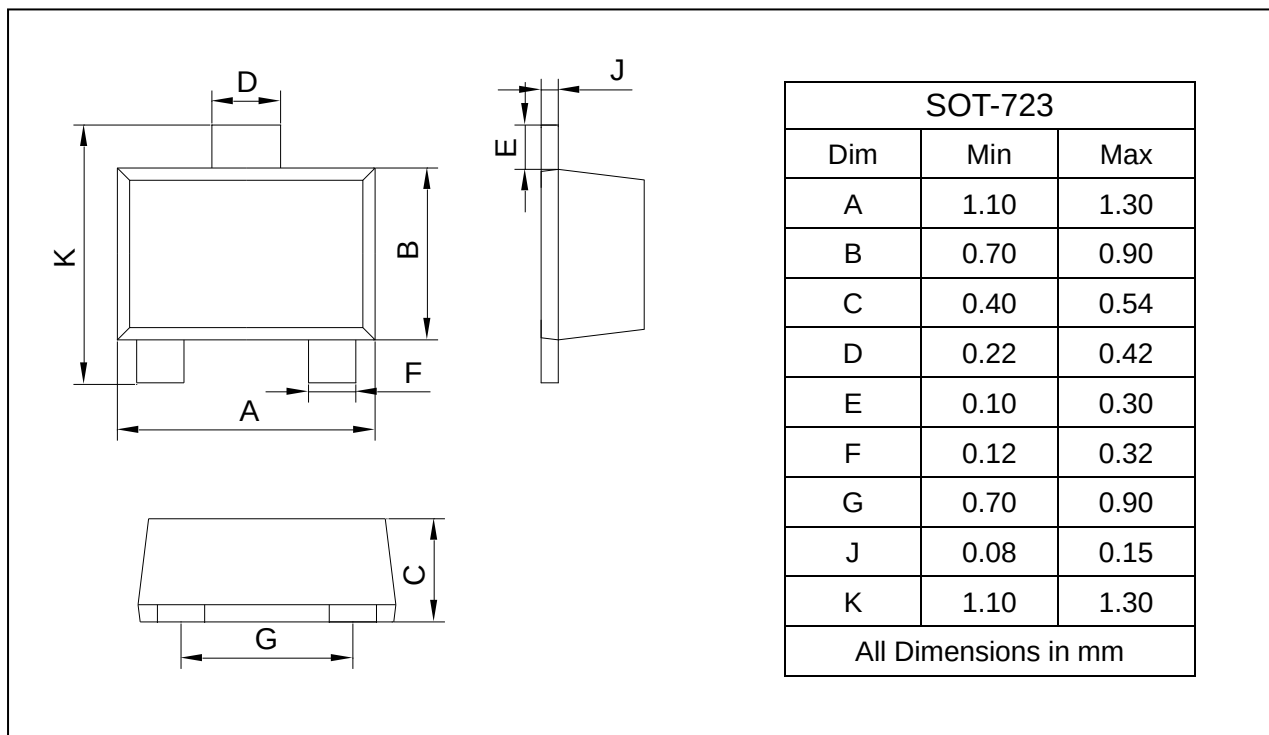
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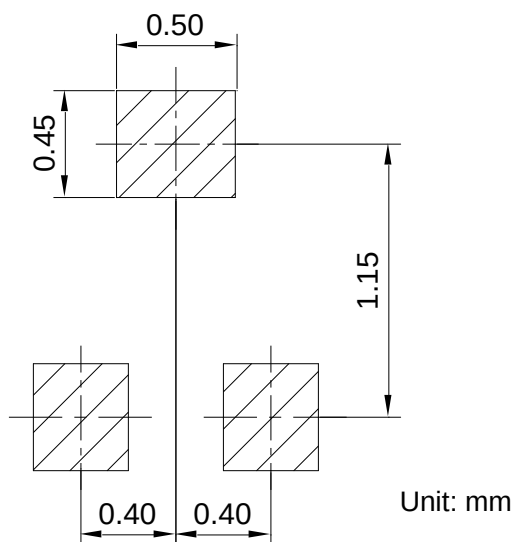
PACKAGE OUTLINE

Plastic surface mounted package

SOT-723



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SA2029	SOT-723	10000 pcs / Tape & Reel