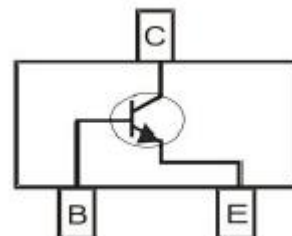


Kingtronics®**2SC2714**
BIPOLAR
TRANSISTOR (NPN)**FEATURES**

Small reverse transfer capacitance
Low Noise
Surface Mount device

MECHANICAL DATA

Case: SOT-23
Case Material: Molded Plastic. UL flammability
Classification Rating: 94V-0
Moisture Sensitivity: Level 1 per J-STD-020
Weight: 0.008 grams (approximate)

SOT-23**MAXIMUM RATINGS (T_A = 25° C unless otherwise noted)**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CBO}	40	V
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Base Voltage	V _{EBO}	4	V
Collector Current	I _C	20	mA
Collector Power Dissipation	P _C	100	mW
Thermal Resistance From Junction To Ambient	R _{θJA}	1000	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature	T _{stg}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25° C unless otherwise specified)

PARAMETER	SYMBOL	MIN.	TYP	MAX.	UNIT	CONDITION
Collector-base breakdown voltage	V _{(BR)CBO}	40			V	I _C =10uA, I _E =0
Collector-emitter breakdown voltage	V _{(BR)CEO}	30			V	I _C =1mA, I _B =0
Emitter-base breakdown voltage	V _{(BR)EBO}	4			V	I _E =10uA, I _C =0
Collector cut-off current	I _{CBO}			0.5	uA	V _{CB} =18V, I _E =0
Emitter cut-off current	I _{EBO}			0.5	uA	V _{EB} =4V, I _C =0
DC current gain	h _{FE}	40		200		V _{CE} =6V, I _C =1mA
Transition frequency	f _T		500		MHZ	V _{CE} =6V, I _C =1mA
Reverse transfer capacitance	C _{RE}		0.7		pF	V _{CE} =6V, I _E =0, f=1MHZ
Noise figure	NF		2.5	5	dB	V _{CE} =6V, I _C =1mA, f=100MHZ

CLASSIFICATION OF h_{FE}

Rank	R	O	Y
Range	40-80	70-140	100-200
Marking	QR	QO	QY

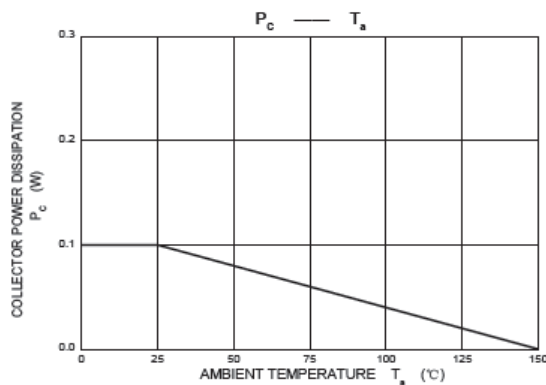
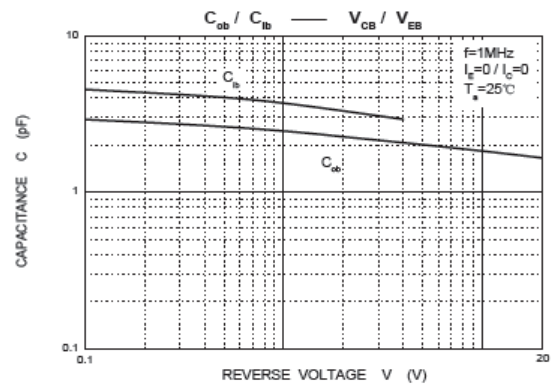
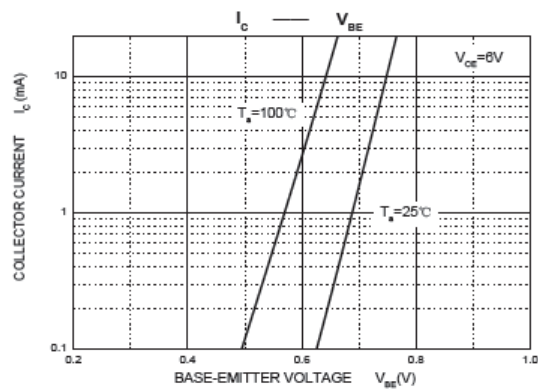
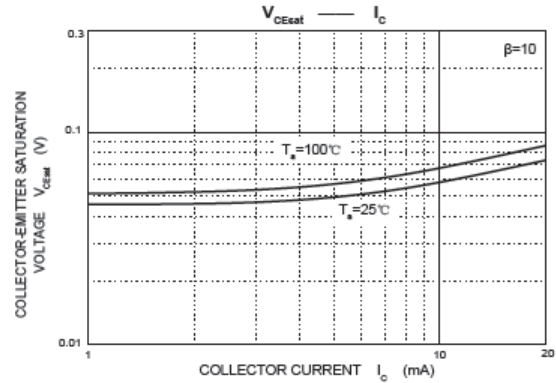
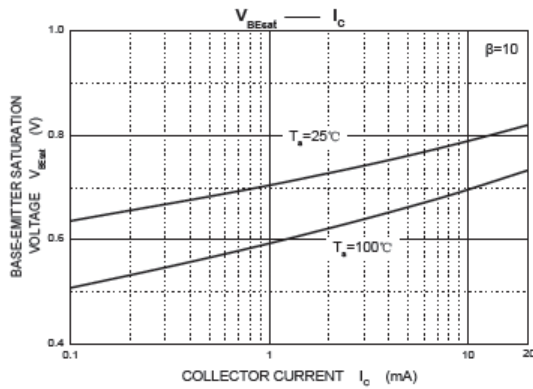
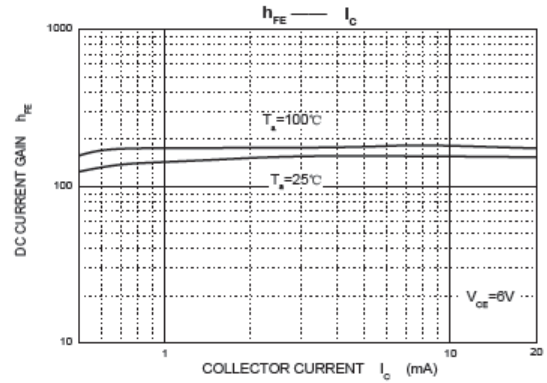
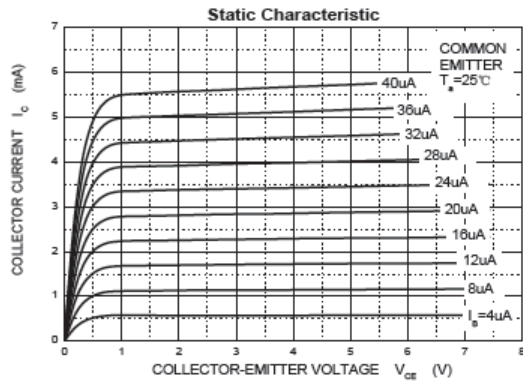
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2SC2714 BIPOLAR TRANSISTOR (NPN)

Typical Characteristics

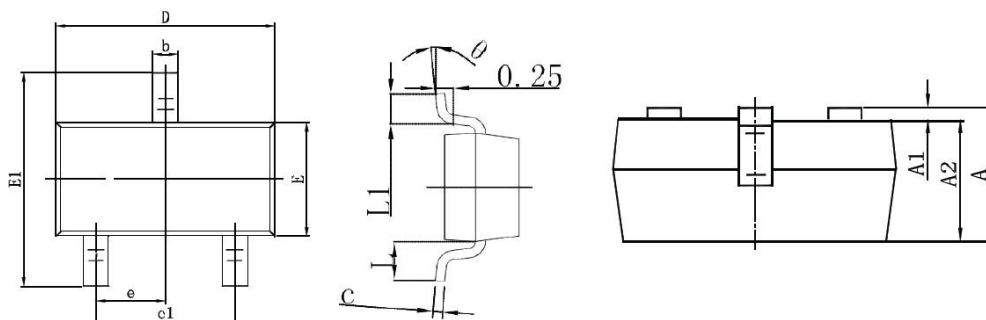


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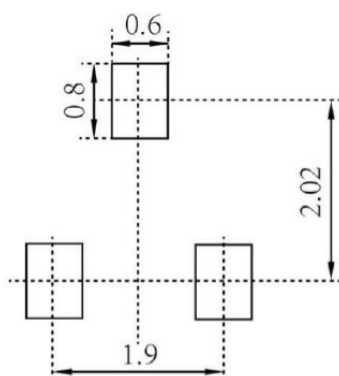
2SC2714 BIPOLAR TRANSISTOR (NPN)

SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

Note: Specifications are subject to change without notice.

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