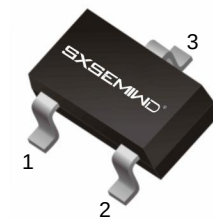


FEATURES

- Small Surface Mount Package
- Complementary to MMSTA42
- Ideal for Medium Power Amplification and Switching

SOT-323



1. BASE
2. EMITTER
3. COLLECTOR

MARKING:K3R

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

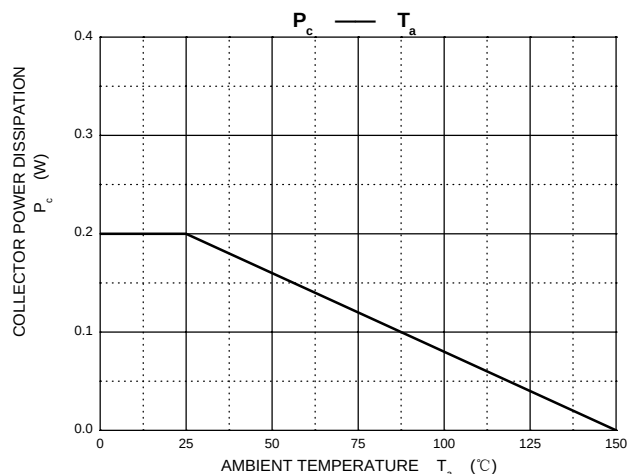
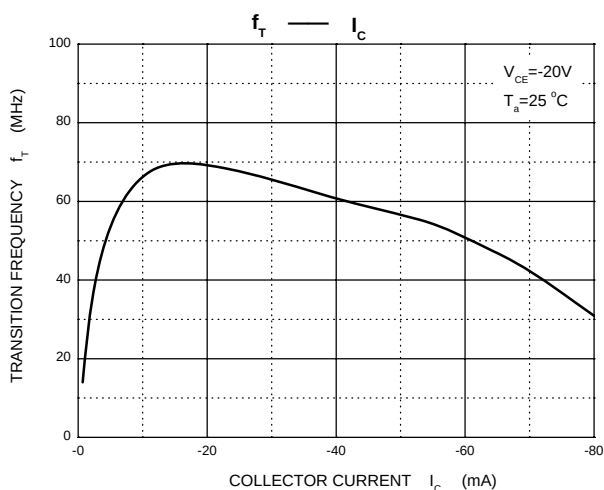
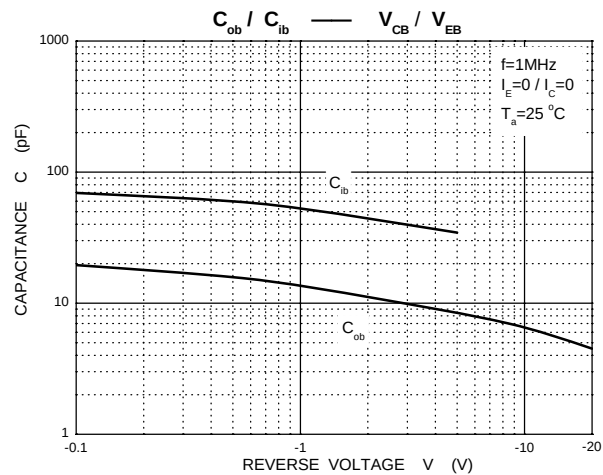
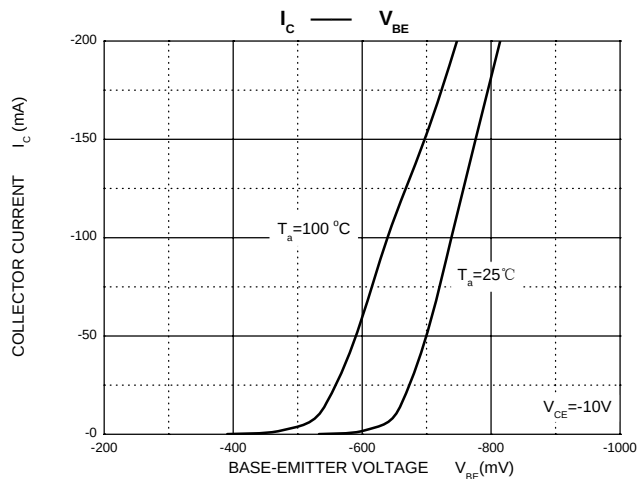
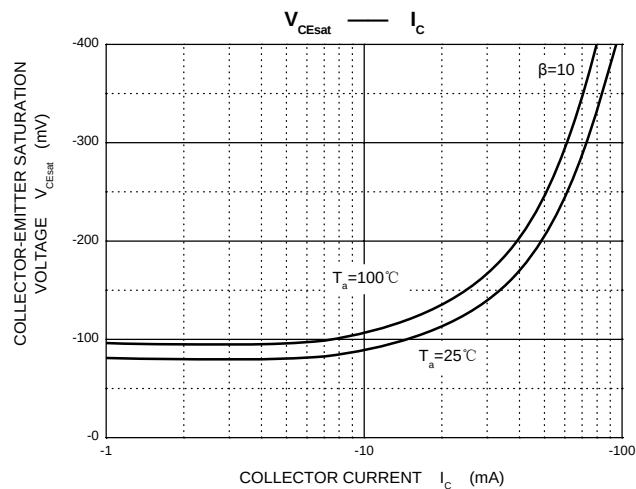
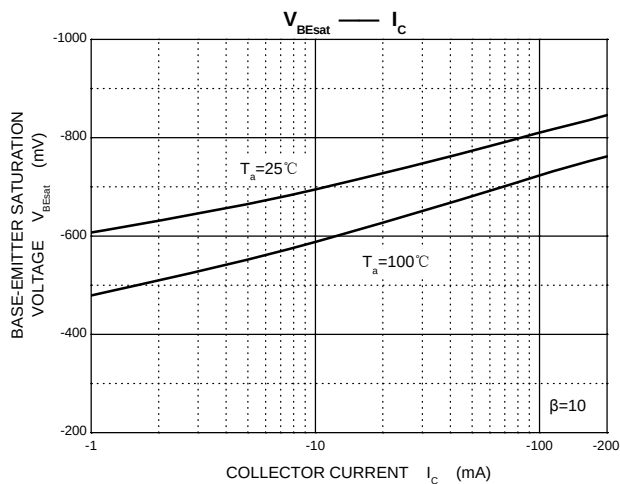
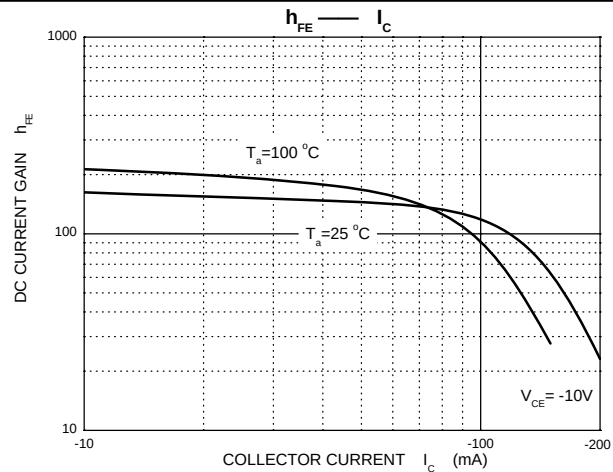
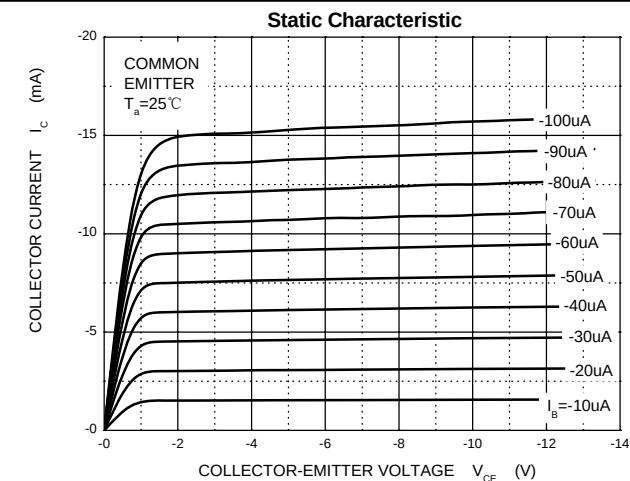
Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-310	V
V_{CE0}	Collector-Emitter Voltage	-305	V
V_{EB0}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-200	mA
I_{CM}	Collector Current -Pulsed	-500	mA
P_C	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C}/\text{W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

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

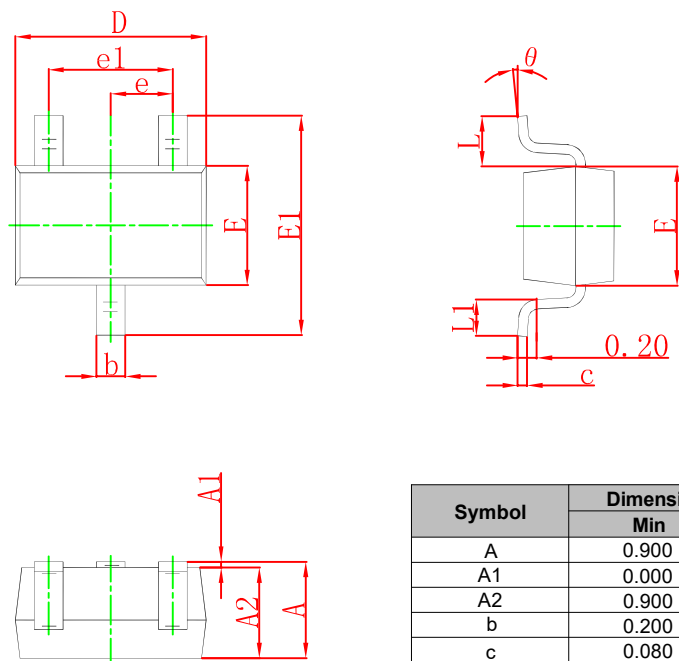
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-310			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-305			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-200\text{V}, I_E=0$			-250	nA
Collector cut-off current	I_{CEO}	$V_{CE}=-200\text{V}, I_B=0$			-250	nA
		$V_{CE}=-300\text{V}, I_B=0$			-5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-100	nA
DC current gain	h_{FE}	$V_{CE}=-10\text{V}, I_C=-1\text{mA}$	60			
		$V_{CE}=-10\text{V}, I_C=-10\text{mA}$	100		200	
		$V_{CE}=-10\text{V}, I_C=-30\text{mA}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-20\text{mA}, I_B=-2\text{mA}$			-0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-20\text{mA}, I_B=-2\text{mA}$			-0.9	V
Transition frequency	f_T	$V_{CE}=-20\text{V}, I_E=-10\text{mA}, f=30\text{MHz}$	50			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-20\text{V}, I_E=0, f=1\text{MHz}$			6	pF

Typical Characteristics

TRANSISTOR (PNP)

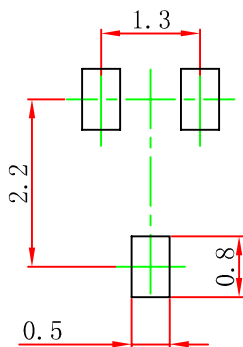


SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-323 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.