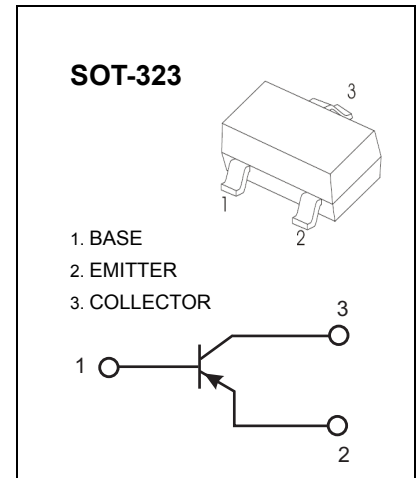


Features

- High Conductance
- Surface Mount Package Ideally Suited For Automatic Insertion
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

Mechanical Data

- **Package:** SOT-323
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102



Maximum Ratings (Ta=25°C unless otherwise noted)

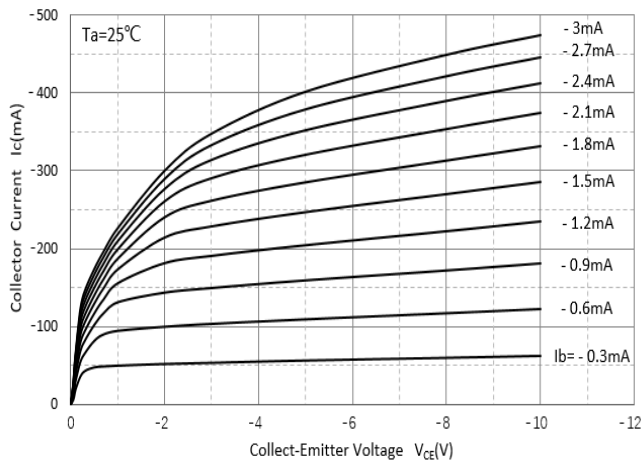
Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V_{CBO}	-60	V
Collector-Emitter Breakdown Voltage	V_{CEO}	-60	V
Emitter-Base Breakdown Voltage	V_{EBO}	-5	V
Collector Current	I_C	-0.6	A
Power Dissipation	P_D	0.2	W
Operation Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

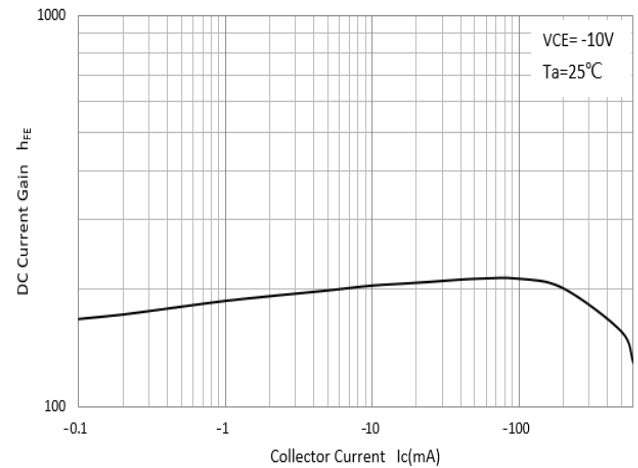
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = -10μA, I _E = 0	-60	-	-	V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = -10mA, I _B = 0	-60	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = -10μA, I _C = 0	-5	-	-	V
Collector Cut-off Current	I _{CBO}	V _{CB} = -50V, I _E = 0	-	-	-10	nA
DC Current Gain	h _{FE}	V _{CE} = -10V, I _C = -1mA	100	-	-	-
		V _{CE} = -10V, I _C = -150mA	100	-	300	-
Collector-emitter Saturation Voltage	V _{CE(sat)}	I _C = -500mA, I _B = -50mA	-	-	-1.6	V
Base-emitter Saturation Voltage	V _{BE(sat)}	I _C = -500mA, I _B = -50mA	-	-	-2.6	V
Transition Frequency	f _T	I _C = -50mA, V _{CE} = -20V f = 100MHz	200	-	-	MHz
Delay Time	t _d	V _{CC} = -30V, I _C = -150mA I _{B1} = -15mA	-	-	10	ns
Rise Time	t _r		-	-	40	ns
Storage Time	t _s	V _{CC} = -6V, I _C = -150mA I _{B1} = I _{B2} = -15mA	-	-	225	ns
Fall Time	t _f		-	-	60	ns

Characteristics (Typical)

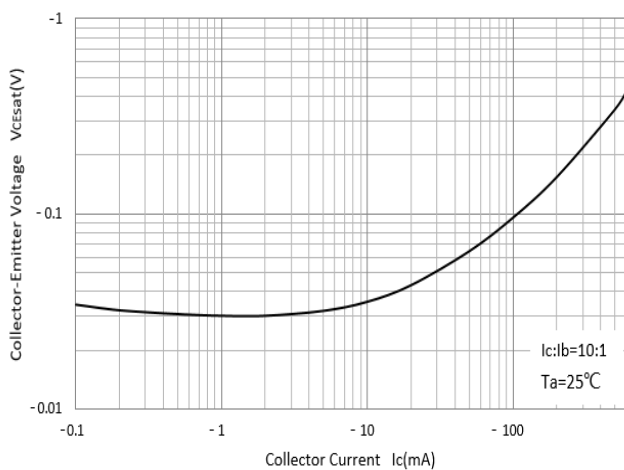
Static Characteristic



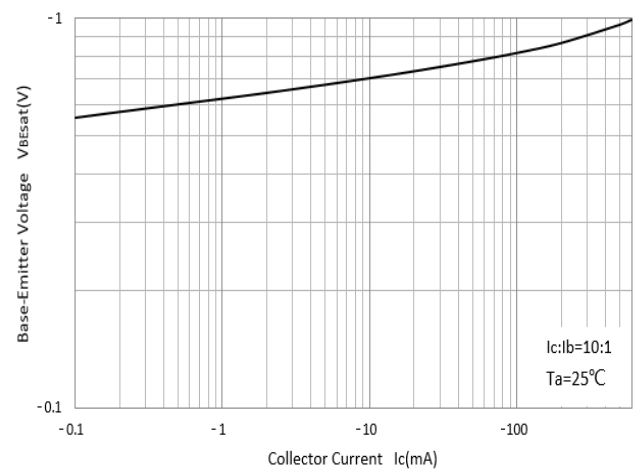
DC Current Gain



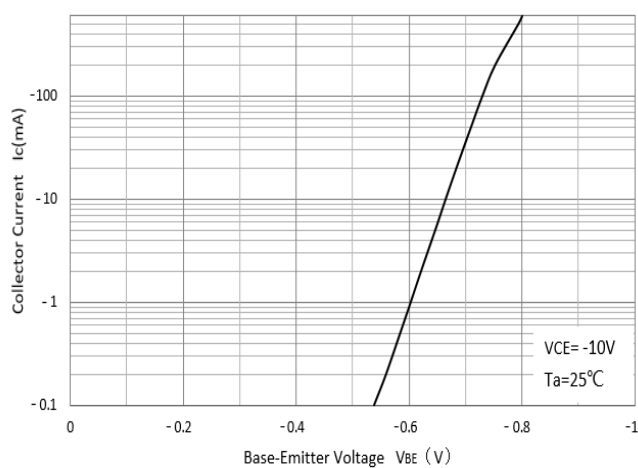
Collector-Emitter Saturation Voltage



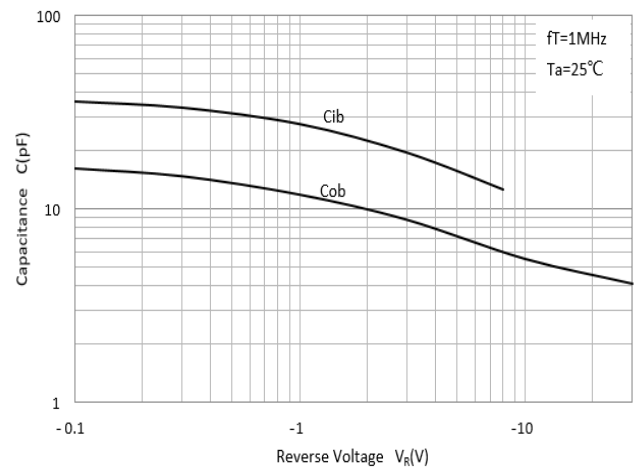
Base-Emitter Saturation Voltage



Base-Emitter On Voltage



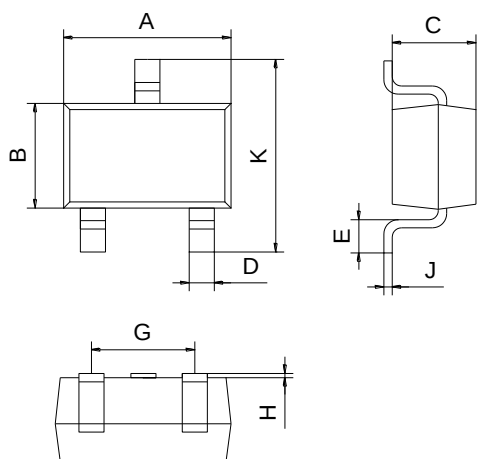
$C_{ob}/C_{ib}-V_{CB}/V_{EB}$



Marking

Type number	Marking code
MMST2907A-Q1	K3F

SOT-323 Package Outline Dimensions



SOT-323		
Dimension	Min.	Max.
A	1.80	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.40
E	0.25	0.40
G	1.20	1.40
H	0.00	0.10
J	0.05	0.25
K	2.10	2.45

SOT-323 Soldering Footprint (mm)

