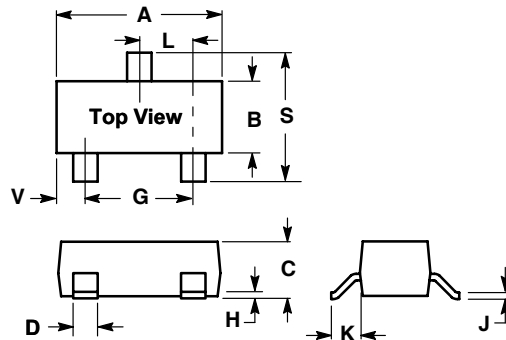
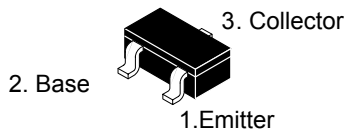


RoHS Compliant Product

FEATURES

- Plastic-Encapsulate Transistors
- Power dissipation & Collector current
P_{cm}: 0.2W I_{cm}: 0.3A
- High voltage V_(BR): 300V



SOT-323		
Dim	Min	Max
A	1.800	2.200
B	1.150	1.350
C	0.800	1.000
D	0.300	0.400
G	1.200	1.400
H	0.000	0.100
J	0.100	0.250
K	0.350	0.500
L	0.590	0.720
S	2.000	2.400
V	0.280	0.420
All Dimension in mm		

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 100 μA, I _E =0	300		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 1 mA, I _B =0	300		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 100 μA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =200V, I _E =0		0.25	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0		0.1	μA
DC current gain	H _{FE (1)}	V _{CE} = 10V, I _C = 1mA	60		
	H _{FE (2)}	V _{CE} = 10V, I _C =10mA	100	200	
	H _{FE (3)}	V _{CE} =10V, I _C =30mA	70		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =20 mA, I _B = 2mA		0.2	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 20 mA, I _B =2mA		0.9	V
Transition frequency	f _T	V _{CE} = 20V, I _C = 10mA f=30MHz	50		MHz

DEVICE MARKING

MMBTA42W=K3M

MMBTA42W

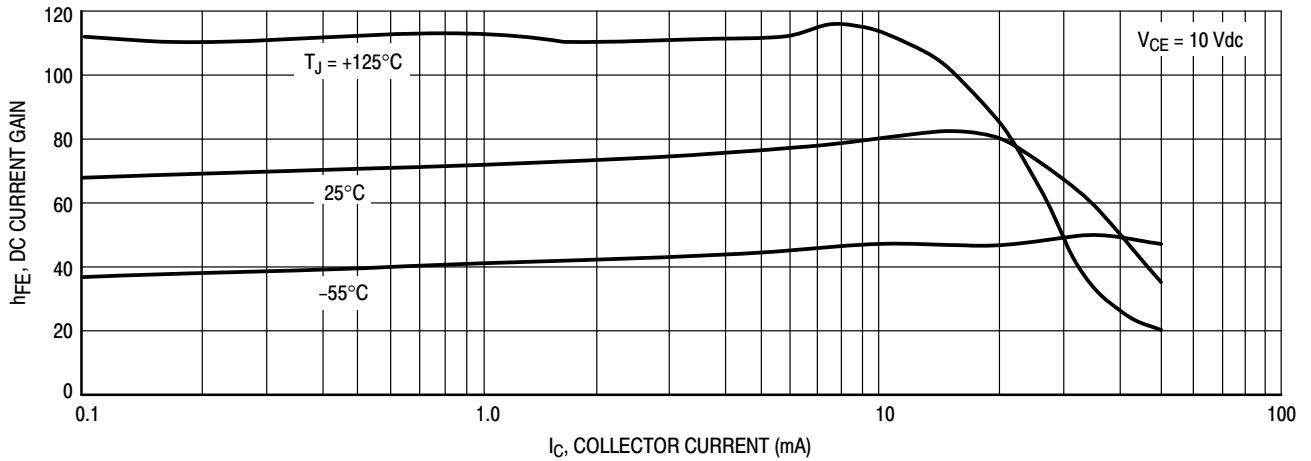


Figure 1. DC Current Gain

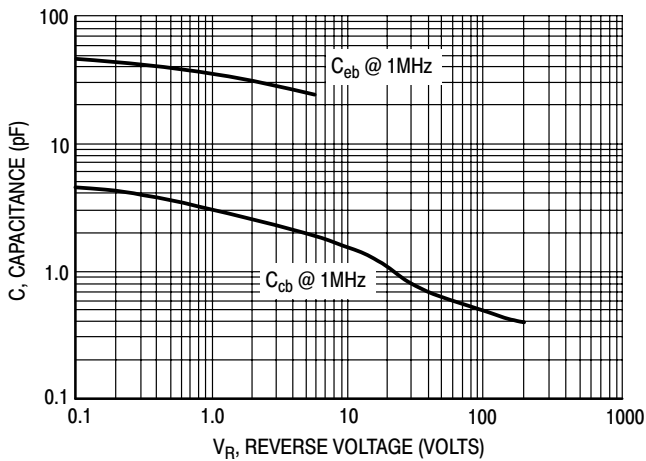


Figure 2. Capacitance

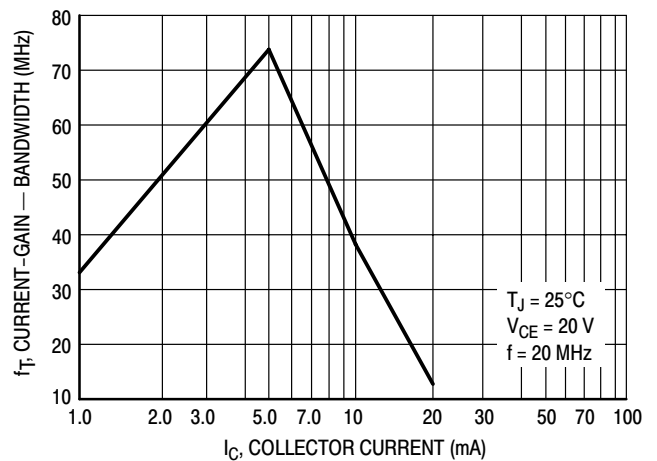
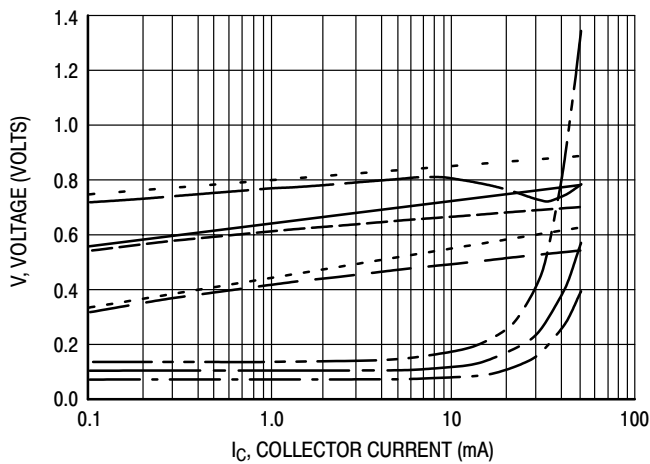


Figure 3. Current-Gain - Bandwidth



- $V_{CE(sat)}$ @ 25°C , $I_C/I_B = 10$
- $V_{CE(sat)}$ @ 125°C , $I_C/I_B = 10$
- $V_{CE(sat)}$ @ -55°C , $I_C/I_B = 10$
- $V_{BE(sat)}$ @ 25°C , $I_C/I_B = 10$
- $V_{BE(sat)}$ @ 125°C , $I_C/I_B = 10$
- $V_{BE(sat)}$ @ -55°C , $I_C/I_B = 10$
- $V_{BE(on)}$ @ 25°C , $V_{CE} = 10 \text{ V}$
- $V_{BE(on)}$ @ 125°C , $V_{CE} = 10 \text{ V}$
- $V_{BE(on)}$ @ -55°C , $V_{CE} = 10 \text{ V}$

Figure 4. "ON" Voltages