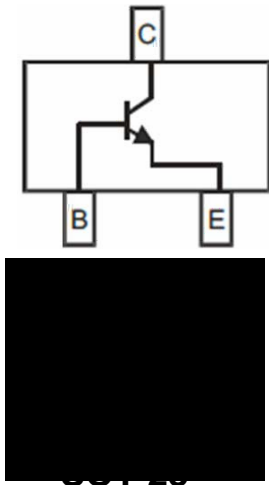


## NPN General Purpose Amplifier



### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- High Conductance
- Part no. with suffix "Q" means AEC-Q101 qualified

### Applications

- NPN General Purpose Amplifier

### Mechanical Data

- Case: SOT-23
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking: 1GM

### Maximum Ratings (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Value
Collector-Base Voltage	$V_{CBO}$	V	80
Collector-Emitter Voltage	$V_{CEO}$	V	80
Emitter-Base Voltage	$V_{EBO}$	V	4
Collector Current -Continuous	$I_C$	mA	500
Total Device Dissipation	$P_D$	mW	300
Junction Temperature	$T_j$		-55 to +150
Storage Temperature	$T_{STG}$		-55 to +150



### Electrical Characteristics (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{CBO}$	V	$I_C=100\mu A, I_E=0$	80		
Collector-emitter breakdown voltage	$V_{CEO}$	V	$I_C=1mA, I_B=0$	80		
Emitter-base breakdown voltage	$V_{EBO}$	V	$I_E=100\mu A, I_C=0$	4		
Collector-base cut-off current	$I_{CBO}$	$\mu A$	$V_{CB}=80V, I_E=0$			0.1
Collector-emitter cut-off current	$I_{CEO}$	$\mu A$	$V_{CE}=60V, I_B=0$			0.1
Emitter-base cut-off current	$I_{EBO}$	$\mu A$	$V_{EB}=3V, I_C=0$			0.1
DC current gain	$h_{FE}$		$V_{CE}=1V, I_C=10mA$	100		
	$h_{FE}$		$V_{CE}=1V, I_C=100mA$	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=100mA, I_B=10mA$			0.25
Base-emitter saturation voltage	$V_{BE(sat)}$	V	$I_C=100mA, I_B=10mA$			1.2

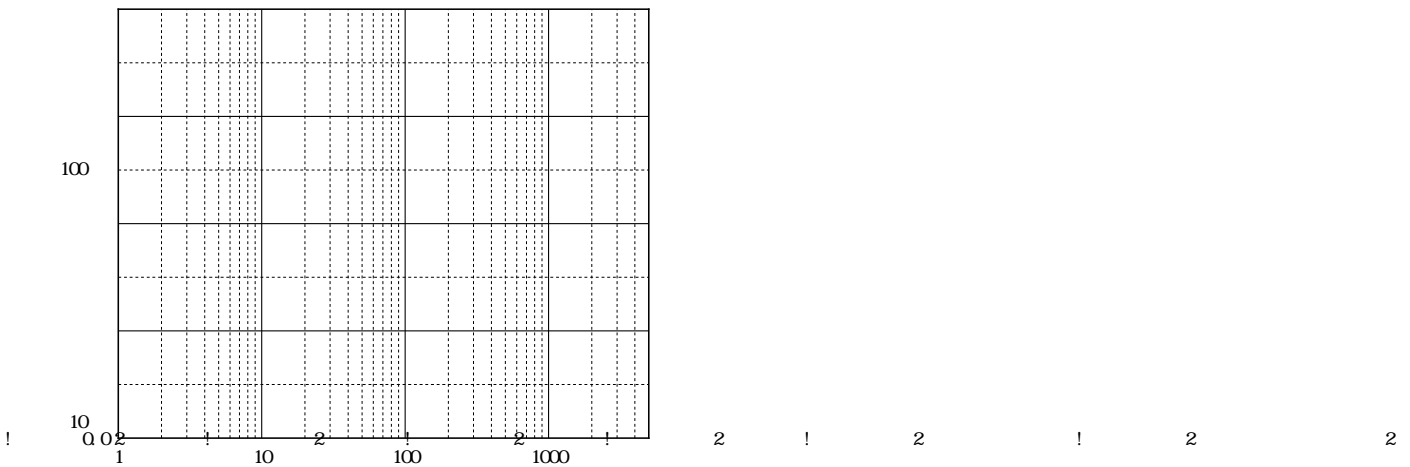
### Other Characteristics (Ta=25 unless otherwise noted)

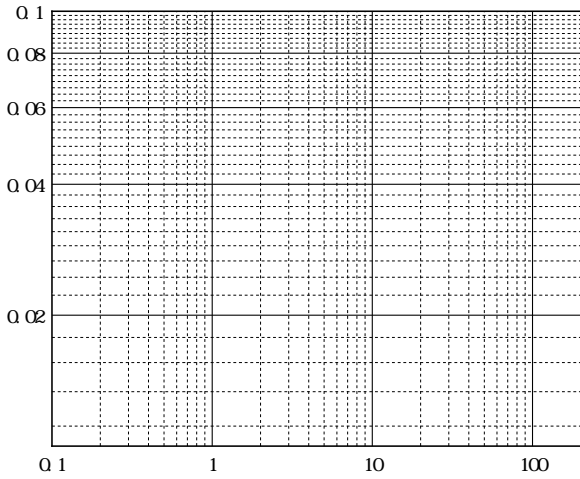
Item	Symbol	Unit	Conditions	Min	Typ	Max
Transition frequency	$f_T$	MHz	$V_{CE}=2V, I_C=10mA, f=100MHz$	100		

### Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBTA06Q	F2	Approximate 0.01	3000	30000	120000	7" reel

### Characteristics(Typical)









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**Disclaimer**

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