

P/N suffix V means AEC-Q101 qualified, e.g.MMBT2222AV

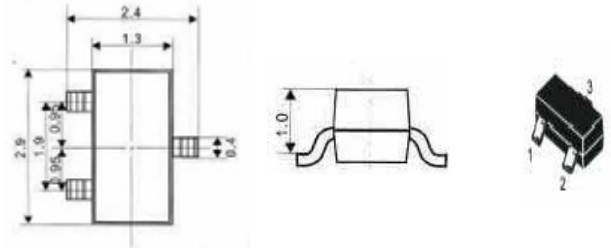
P/N suffix V means Halogen-free

Silicon PNP SMD triode

1: base 2: emitter 3: collector
encapsulation mode: SOT-23

Small and medium-sized power amplifier

Outline example



Type	Marking
MMBT2222A	1P

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

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V _{CB0}	75	V
Collector-Emitter Breakdown Voltage	V _{CE0}	40	V
Emitter-Base Breakdown Voltage	V _{EB0}	6	V
Collector Current	I _C	600	mA
Collector Power Dissipation	P _C	300	mW
Junction Temperature	T _J	-65~150	°C
Storage Temperature	T _{stg}	-65~150	°C

Electrical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	V _{CB0}	I _C =100μA I _E =0	75		V
Collector-Emitter Breakdown Voltage	V _{CE0}	I _C =1mA I _B =0	40		V
Emitter-Base Breakdown Voltage	V _{EB0}	I _E =100μA I _C =0	6		V
Collector Cutoff Current	I _{CB0}	V _{CB} =40V I _E =0		10	nA
Collector Cutoff Current	I _{CEX}	V _{CB} =30V V _{EB(off)} =3V		10	nA
Emitter Cutoff Current	I _{EB0}	V _{CE} =5V I _B =0		100	nA
DC Current Gain	HFE ⁽¹⁾	V _{CE} =10V I _C =10mA	75		
	HFE ⁽²⁾	V _{CE} =10V I _C =150mA	100	300	
	HFE ⁽³⁾	V _{CE} =10V I _C =500mA	42		
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =500mA I _B =50mA		1.0	V
		I _C =150mA I _B =15mA		0.3	V
Collector-Base Saturation Voltage	V _{BE(sat)}	I _C =500mA I _B =50mA		2.0	V
		I _C =150mA I _B =15mA		1.2	V
transition frequency	f _T	V _{CE} =20V I _C =20mA f=100MHz	300		MHz

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