

SOT-23 Plastic-Encapsulate Transistors

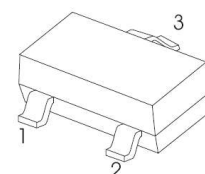
MMBT2222A



Features

- Complementary to MMBT2907A

SOT-23



- BASE
- EMITTER
- COLLECTOR

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

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	75	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	600	mA
P_C	Collector Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	417	$^\circ\text{C}/\text{W}$
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^\circ\text{C}$

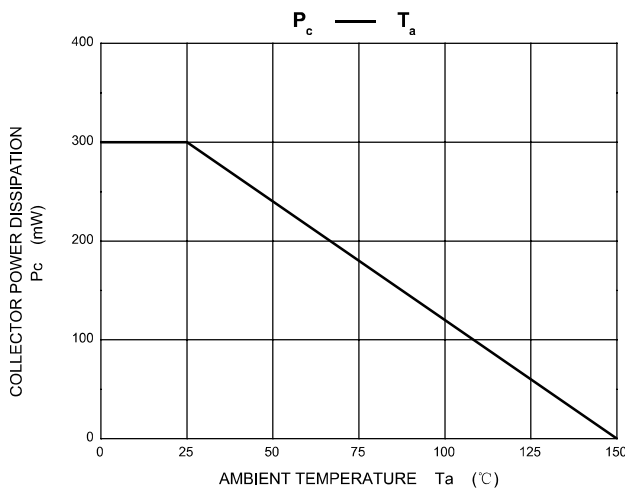
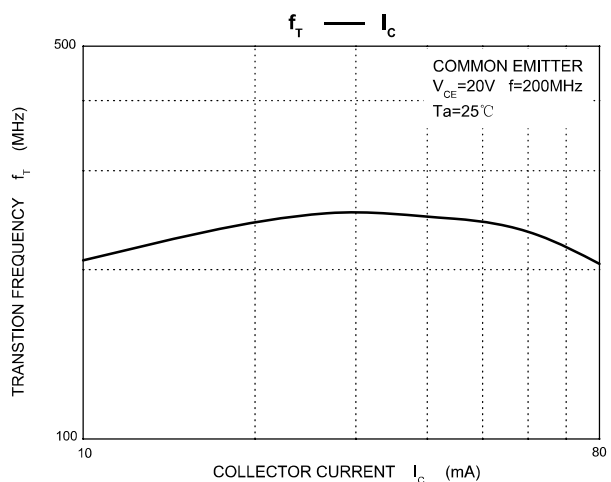
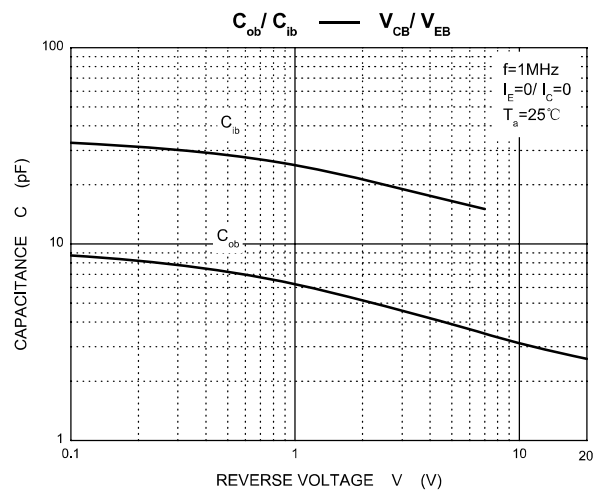
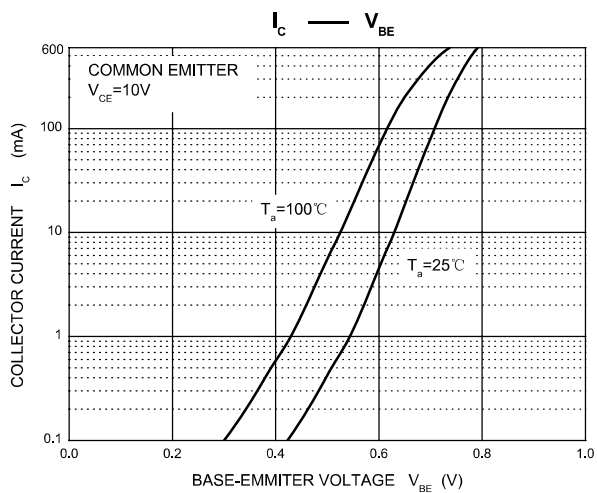
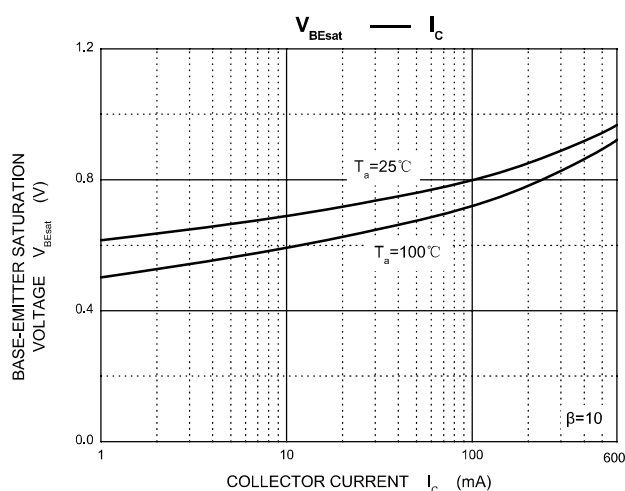
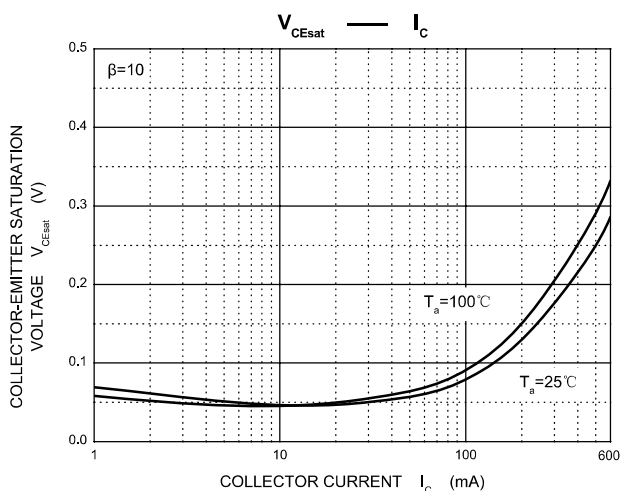
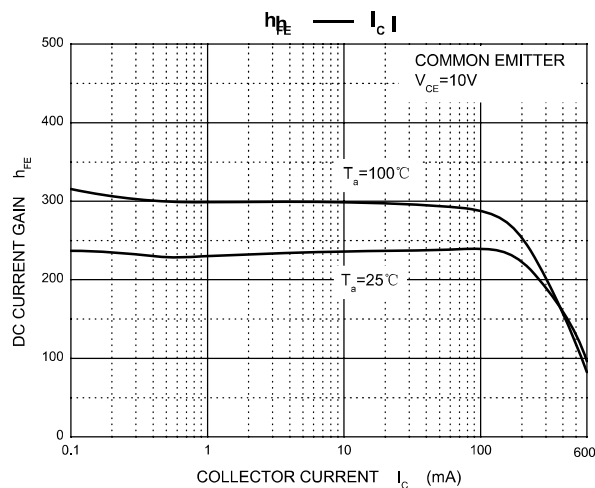
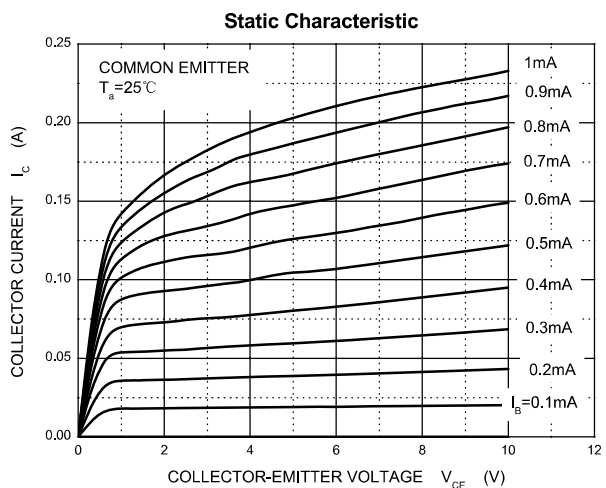
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	75			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=10\text{mA}, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			0.01	μA
Collector cut-off current	I_{CEX}	$V_{CE}=30\text{V}, V_{BE(off)}=3\text{V}$			0.01	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}^*$	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100		300	
	$h_{FE(2)}$	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	40			
	$h_{FE(3)}^*$	$V_{CE}=10\text{V}, I_C=500\text{mA}$	42			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=500\text{mA}, I_B=50\text{mA}$ $I_C=150\text{mA}, I_B=15\text{mA}$			1 0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=500\text{mA}, I_B=50\text{mA}$ $I_C=150\text{mA}, I_B=15\text{mA}$			2.0 1.2	V
Transition frequency	f_T	$V_{CE}=20\text{V}, I_C=20\text{mA}, f=100\text{MHz}$	300			MHz
Delay time	t_d	$V_{CC}=30\text{V}, V_{BE(off)}=-0.5\text{V}$			10	ns
Rise time	t_r	$I_C=150\text{mA}, I_{B1}=15\text{mA}$			25	ns
Storage time	t_s	$V_{CC}=30\text{V}, I_C=150\text{mA}$			225	ns
Fall time	t_f	$I_{B1}=-I_{B2}=15\text{mA}$			60	ns

*pulse test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycles $\leq 2.0\%$.

Typical Characteristics

SOT-23 Plastic-Encapsulate Transistors



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [LangJie manufacturer](#):

Other Similar products are found below :

[BC559C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [NJVMJD148T4G](#) [NTE16](#) [NTE195A](#) [IMX9T110](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SB1204S-TL-E](#) [2SC5488A-TL-H](#) [FMC5AT148](#) [2N2369ADCSM](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC4618TLN](#) [CPH6501-TL-E](#) [US6T6TR](#) [BAX18/A52R](#) [BC556/112](#) [IMZ2AT108](#) [MMST8098T146](#) [MCH6102-TL-E](#) [BC846B-13-F](#) [2N3879](#) [30A02MH-TL-E](#) [NTE13](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [JANTX2N2920L](#) [JANSR2N2907AUB](#) [CMLT3946EG TR](#) [SNSS40600CF8T1G](#) [CMLT3906EG TR](#) [GRP-DATA-JANS2N2907AUB](#) [GRP-DATA-JANS2N2222AUA](#) [MMDT3946FL3-7](#) [2N4240](#) [JANS2N3019](#) [MSB30KH-13](#) [2N2221AUB](#) [2SD1815T-TL-E](#) [2N6678](#) [2N2907Ae4](#) [JAN2N3507](#)