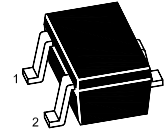


MMBT9018W

NPN Silicon Epitaxial Planar Transistor

for AM/FM amplifier and local oscillator of FM/VHF tuner applications.



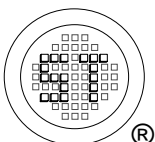
1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	15	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_{C}	50	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{S}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{\text{CE}} = 5\text{ V}$, $I_{\text{C}} = 1\text{ mA}$	MMBT9018GW h_{FE}	75	-	105	-
	MMBT9018HW h_{FE}	105	-	190	-
Collector Base Breakdown Voltage at $I_{\text{C}} = 100\ \mu\text{A}$	$V_{(\text{BR})\text{CBO}}$	30	-	-	V
Collector Emitter Breakdown Voltage at $I_{\text{C}} = 1\text{ mA}$	$V_{(\text{BR})\text{CEO}}$	15	-	-	V
Emitter Base Breakdown Voltage at $I_{\text{E}} = 100\ \mu\text{A}$	$V_{(\text{BR})\text{EBO}}$	5	-	-	V
Collector Cutoff Current at $V_{\text{CB}} = 12\text{ V}$	I_{CBO}	-	-	50	nA
Collector Emitter Saturation Voltage at $I_{\text{C}} = 10\text{ mA}$, $I_{\text{B}} = 1\text{ mA}$	$V_{\text{CE}(\text{sat})}$	-	-	0.5	V
Collector Base Capacitance at $V_{\text{CB}} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{CBO}	-	1.3	1.7	pF
Gain Bandwidth Product at $V_{\text{CE}} = 5\text{ V}$, $I_{\text{C}} = 5\text{ mA}$	f_{T}	700	1100	-	MHz



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 71116

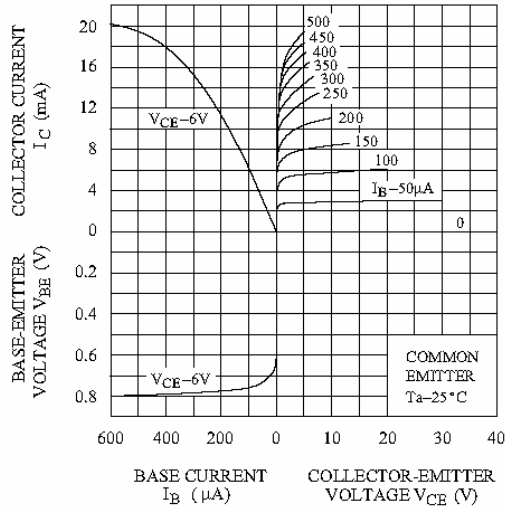


ISO 9001:2000
Certificate No. 050098

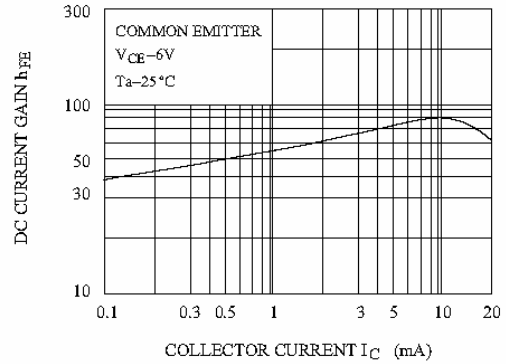
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MMBT9018W

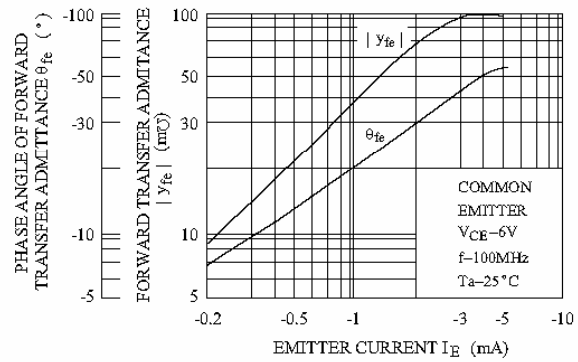
STATIC CHARACTERISTICS



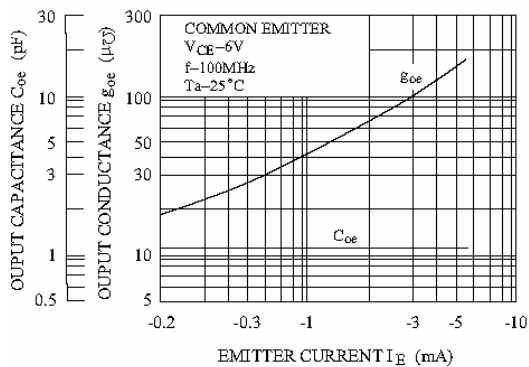
$h_{FE} - I_C$



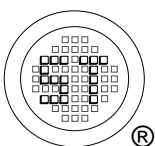
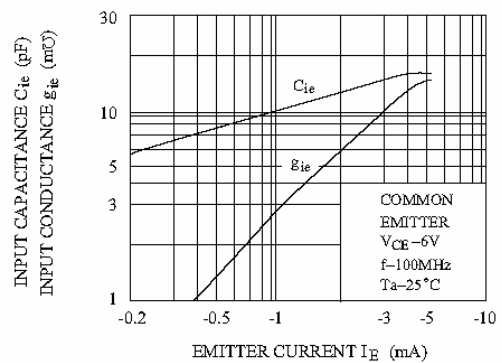
$|y_{fe}|, \theta_{fe} - I_E$



$C_{oe}, g_{oe} - I_E$



$C_{ie}, g_{ie} - I_E$



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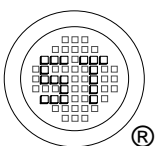
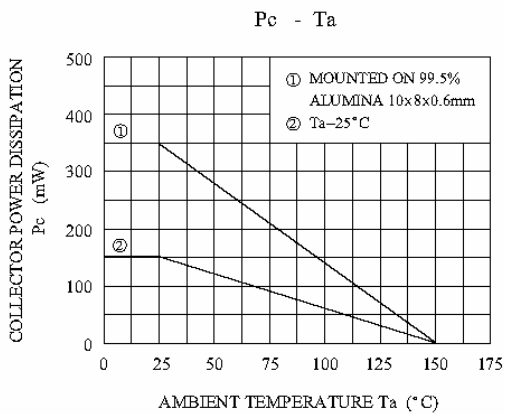
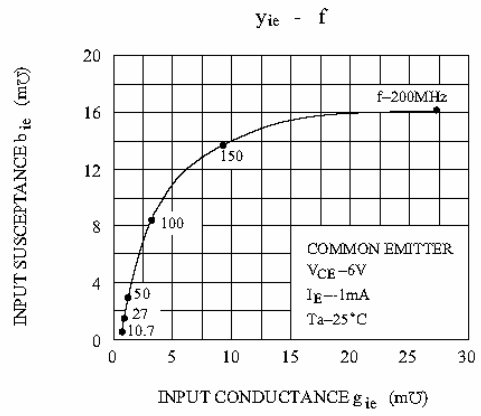
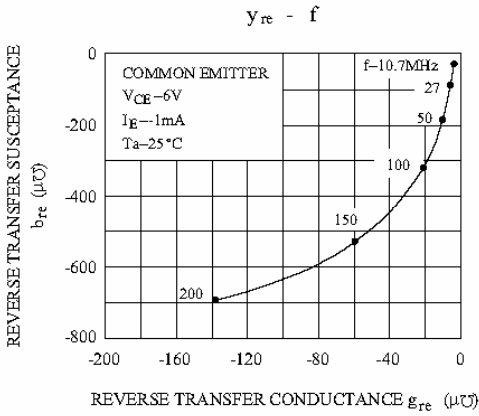
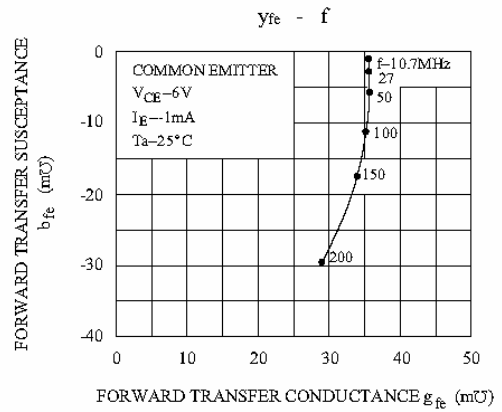
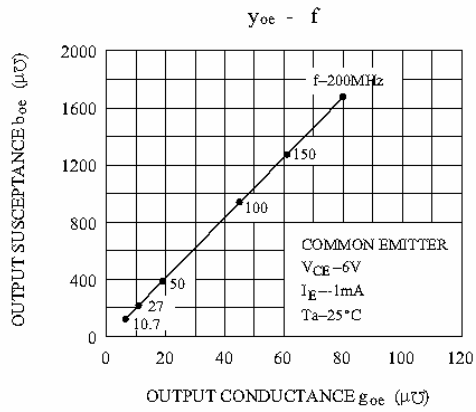


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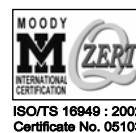


ISO 9001:2000
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ISO/TS 16949 : 2002
 Certificate No. 05103

ISO 14001:2004
 Certificate No. 7116

ISO 9001:2000
 Certificate No. 0506098