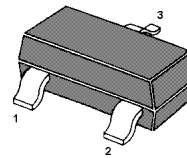


MMBTSD2675

NPN Silicon Epitaxial Planar Transistor

for low frequency amplifier



1. Base 2. Emitter 3. Collector
TO-236 Plastic Package

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

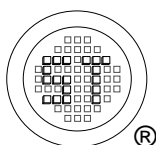
Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CB0}	30	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C I_{CP}	1 2 ¹⁾	A
Power Dissipation	P_{tot}	500 1 ²⁾	mW W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ Single pulse, $P_w = 1\text{ ms}$

²⁾ Mounted on a $25 \times 25 \times 1.0$ mm ceramic substrate

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 2\text{ V}$, $I_C = 100\text{ mA}$	h_{FE}	270	-	680	-
Collector Base Cutoff Current at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	100	nA
Emitter Base Cutoff Current at $V_{EB} = 6\text{ V}$	I_{EBO}	-	-	100	nA
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	$V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	30	-	-	V
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	6	-	-	V
Collector Emitter Saturation Voltage at $I_C = 500\text{ mA}$, $I_B = 25\text{ mA}$	$V_{CE(sat)}$	-	-	350	mV
Transition Frequency at $V_{CE} = 2\text{ V}$, $I_E = 100\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	320	-	MHz
Output Capacitance at $V_{CB} = 10\text{ V}$, $I_E = 0\text{ A}$, $f = 1\text{ MHz}$	C_{ob}	-	7	-	pF



SEMTECH ELECTRONICS LTD.



ISO 14001:2004 Certificate No. 7116
ISO 9001:2008 Certificate No. 90719410
BS-OHSAS 18001:2007 Certificate No. 7116
IECQ QC 080000 Certificate No. PRC:SPM-1483

Dated: 16/03/2015 Rev: 01

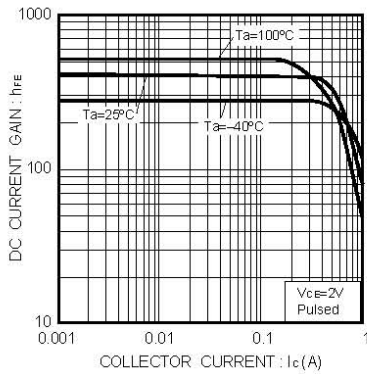


Fig.1 DC current gain vs. collector current

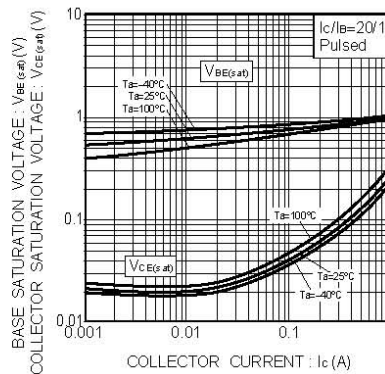


Fig.2 Collector-emitter saturation voltage vs. collector current

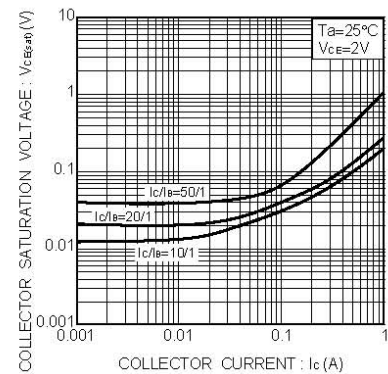


Fig.3 Collector-emitter saturation voltage vs. collector current

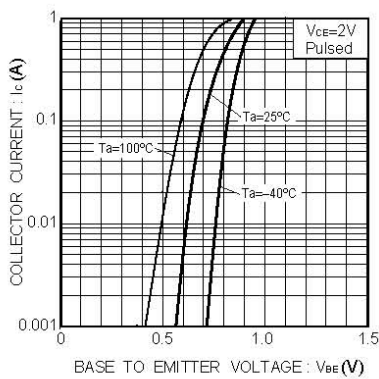


Fig.4 Grounded emitter propagation characteristics

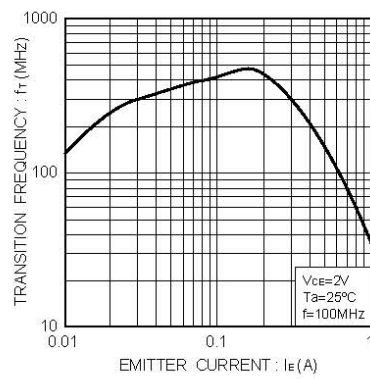


Fig.5 Gain bandwidth product vs. emitter current

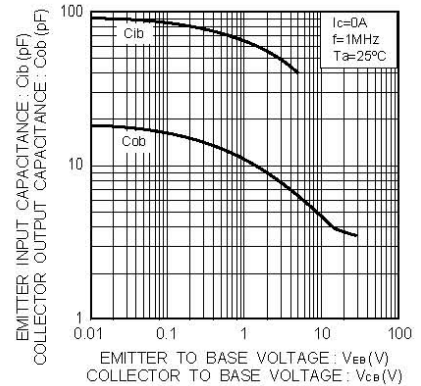
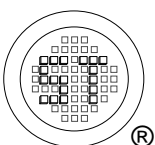


Fig.6 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage



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