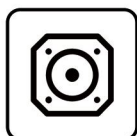


自主封測 品質把控 售後保障

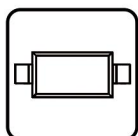
WEB | WWW.TDSEMIC.COM



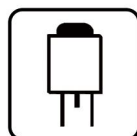
電源管理



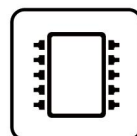
顯示驅動



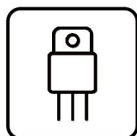
二三極管



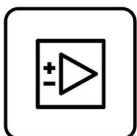
LDO穩壓器



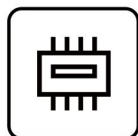
觸摸芯片



MOS管



運算放大器



存儲芯片



MCU



串口通信

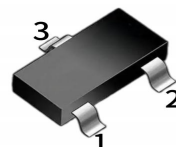
2N3904 1AM-TD(0.26)

產品規格說明書

FEATURES:

※ Collector Current: $I_C=200\text{mA}$

SOT-23
1.BASE
2.EMITTER
3.COLLECTOR



MARKING:1AM

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	VCBO	60	V
Collector-Emitter Voltage	VCEO	40	V
Emitter-Base Voltage	VEBO	6	V
Collector Current	IC	200	mA
Collector Power Dissipation	PC	200	mW
Thermal Resistance From Junction To Ambient	R θ JA	625	$^\circ\text{C/W}$
Junction Temperature	Tj	150	$^\circ\text{C}$
Storage Temperature	Tstg	-55~+150	$^\circ\text{C}$

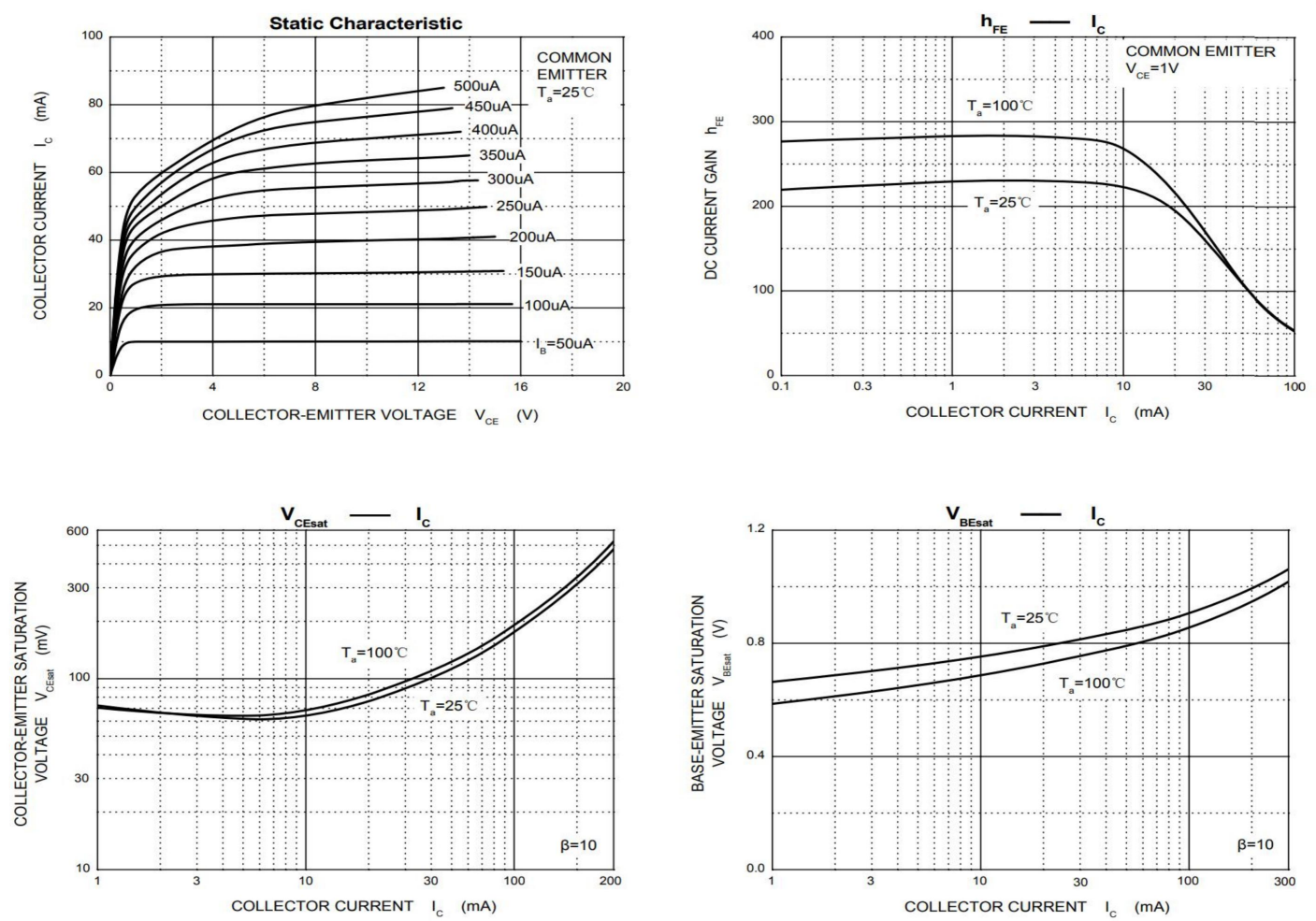
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	$I_C=10\mu\text{A}$, $I_E=0$	60			V
Collector-emitter breakdown voltage	V(BR)CEO	$I_C=1\text{mA}$, $I_B=0$	40			V
Emitter-base breakdown voltage	V(BR)EBO	$I_E=10\mu\text{A}$, $I_C=0$	6			V
Collector cut-off current	ICBO	$V_{CB}=60\text{V}$, $I_E=0$			0.1	μA
Emitter cut-off current	IEBO	$V_{EB}=6\text{V}$, $I_C=0$			0.1	μA
DC current gain	hFE	$V_{CE}=1\text{V}$, $I_C=10\text{mA}$	100		300	
	hFE	$V_{CE}=1\text{V}$, $I_C=50\text{mA}$	60			
	hFE	$V_{CE}=1\text{V}$, $I_C=100\text{mA}$	40			
Collector-emitter saturation voltage	VCE(sat)	$I_C=50\text{mA}$, $I_B=5\text{mA}$			0.3	V
Base-emitter saturation voltage	VBE(sat)	$I_C=50\text{mA}$, $I_B=5\text{mA}$			0.95	V
Transition frequency	fT	$V_{CE}=20\text{V}$, $I_C=100\text{mA}$ f=100MHz	300			MHz
Delay time	td	$V_{CC}=3\text{V}$, $V_{BE}=0.5\text{V}$, $I_C=10\text{mA}$, $I_B=1\text{mA}$,			35	ns
Rise time	tr	$V_{CC}=3\text{V}$, $V_{BE}=0.5\text{V}$, $I_C=10\text{mA}$, $I_B=1\text{mA}$,			35	ns
Storage time	ts	$V_{CC}=3\text{V}$, $V_{BE}=0.5\text{V}$, $I_C=10\text{mA}$, $I_B=1\text{mA}$,			200	ns
Fall time	tf	$V_{CC}=3\text{V}$, $V_{BE}=0.5\text{V}$, $I_C=10\text{mA}$, $I_B=1\text{mA}$,			50	ns

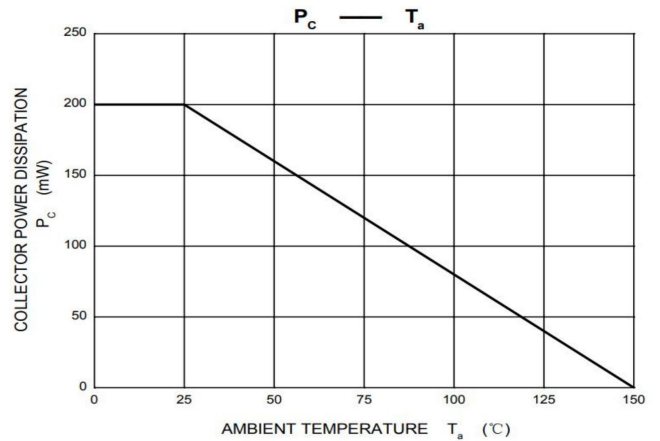
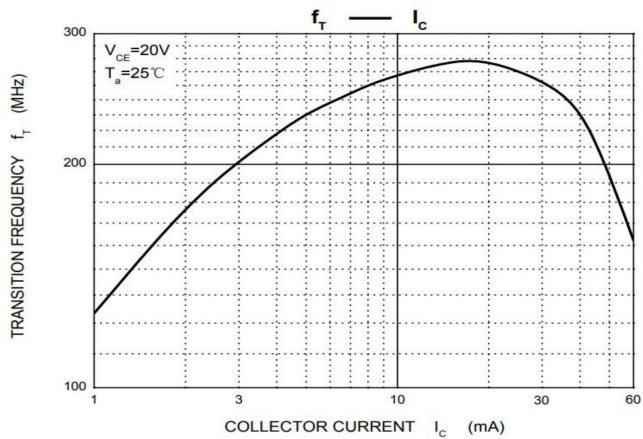
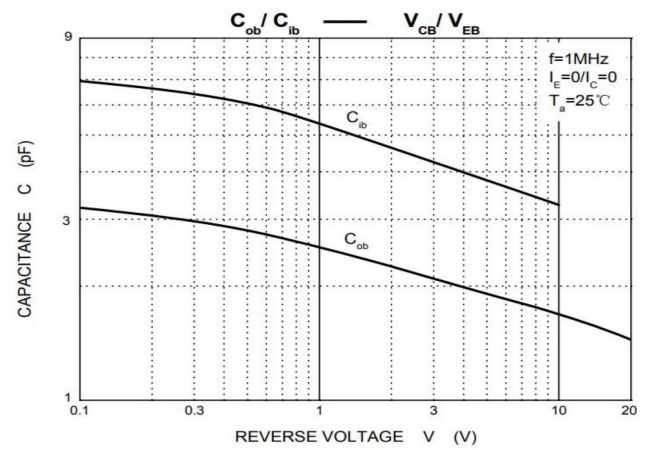
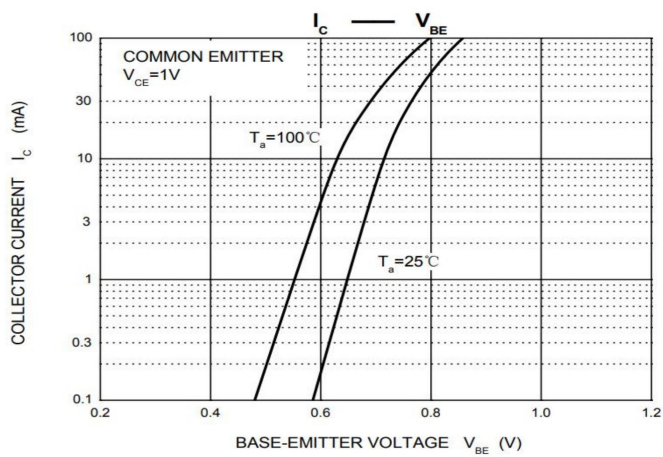
CLASSIFICATION OF hFE

HFE	100-300	
Rank	L	H
Range	100-200	200-300

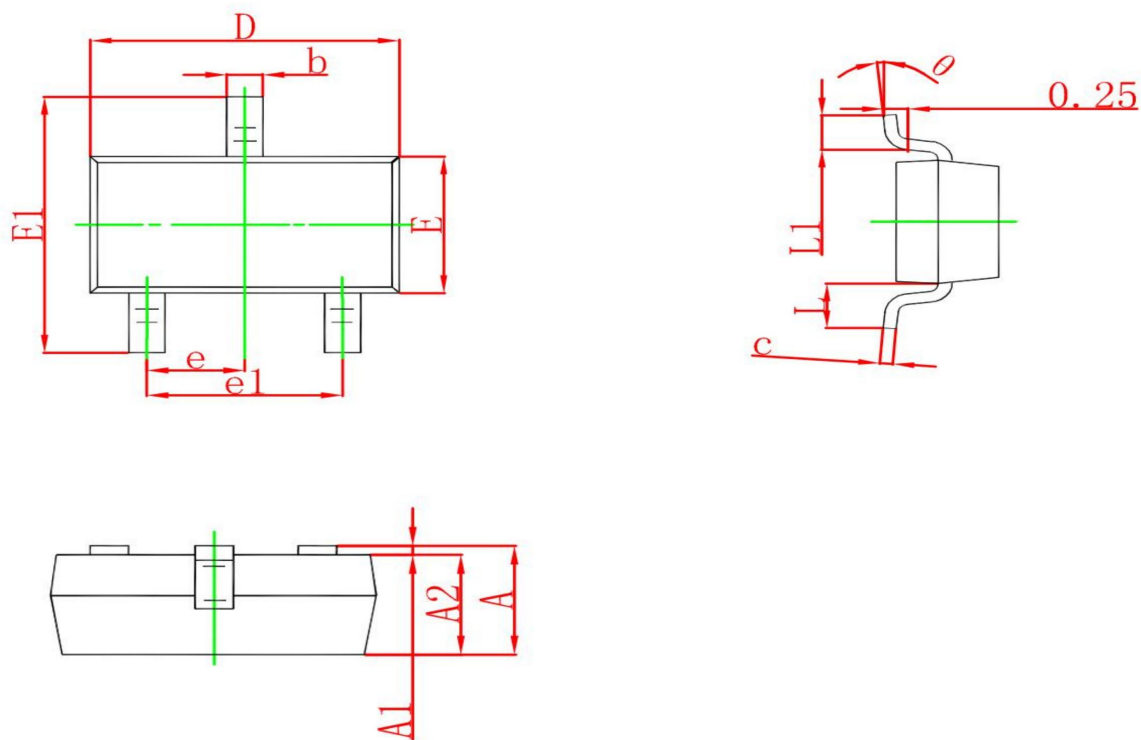
Typical Electrical and Thermal Characteristics



Typical Electrical and Thermal Characteristics



SOT-23 Package Outline Dimesions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°