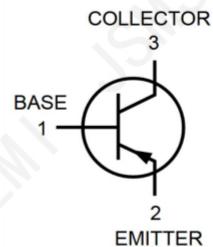


Features

- ◆ Complementary Type NPN Transistor
- ◆ General Purpose Amplifier Applications



SOT-23


 1.BASE
 2.EMITTER
 3.COLLECTOR

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	VCBO	-80	V
Collector-Emitter Voltage	VCEO	-80	V
Emitter-Base Voltage	VEBO	-4	V
Collector Current	IC	-500	mA
Collector Power Dissipation	PC	225	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	555	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	Tstg	-55~+150	$^\circ\text{C}$

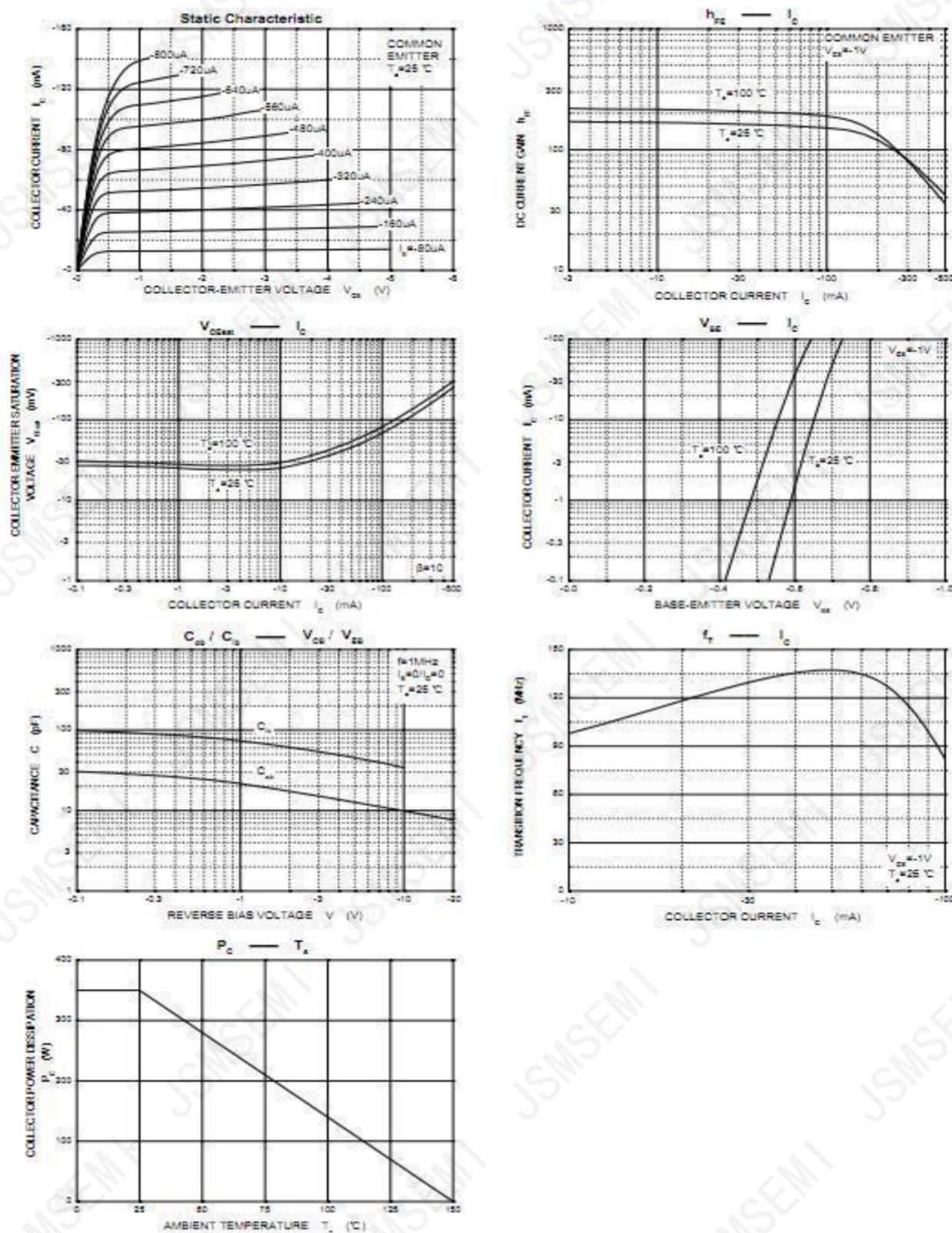
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-basebreakdownvoltage	V(BR)CBO	IC=-100μA,IE=0	-80			V
Collector-emitter breakdown voltage	V(BR)CEO	IC=-1mA,IB=0	-80			V
Emitter-base breakdown voltage	V(BR)EBO	IE=-100μA,IC=0	-4			V
Collector cut-off current	ICBO	V _{CB} =-80V,IE=0			-0.1	μA
Collector cut-off current	ICEO	V _{CE} =-60V,IB=0			-1	μA
Emitter cut-off current	IEBO	V _{EB} =-3V,IC=0			-0.1	μA
DC current gain	h _{FE}	V _{CE} =-1V,IC=-10mA	100		400	
	h _{FE}	V _{CE} =-1V,IC=-100mA	100			
Collector-emitter saturation voltage	V _{CE(sat)}	IC=-100mA,IB=-10mA			-0.25	V
Base-emitter saturation voltage	V _{BE(sat)}	IC=-100mA,IB=-10mA			-1.2	V
Transition frequency	f _T	V _{CE} =-1V,IC=-100mA f=100MHz	50			MHz

CLASSIFICATION OF h_{FE}

Rank	L	H	
Range	80-120	120-250	

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS



Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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