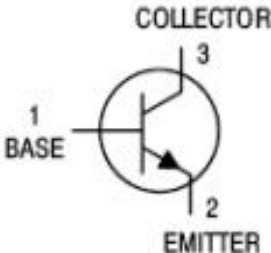


TRANSISTOR (NPN)	SOT-23 Plastic-Encapsulate Transistors																																				
<u>SOT-23</u>  1.BASE 2.EMITTER 3.COLLECTOR Marking :HF	Features ※ Collector Current: $I_c=0.5A$ ※ Power Dissipation																																				
MAXIMUM RATINGS (Ta=25℃ unless otherwise noted) <table><tr><th>Parameter</th><th>Symbol</th><th>Value</th><th>Unit</th></tr><tr><td>Collector-Base Voltage</td><td>VCBO</td><td>60</td><td>V</td></tr><tr><td>Collector-Emitter Voltage</td><td>VCEO</td><td>50</td><td>V</td></tr><tr><td>Emitter-Base Voltage</td><td>VEBO</td><td>6</td><td>V</td></tr><tr><td>Collector Current</td><td>IC</td><td>100</td><td>mA</td></tr><tr><td>Collector Power Dissipation</td><td>PC</td><td>450</td><td>mW</td></tr><tr><td>Thermal Resistance From Junction To Ambient</td><td>ROJA</td><td>625</td><td>℃/W</td></tr><tr><td>Junction Temperature</td><td>Tj</td><td>150</td><td>℃</td></tr><tr><td>Storage Temperature</td><td>Tstg</td><td>-55~+150</td><td>℃</td></tr></table>		Parameter	Symbol	Value	Unit	Collector-Base Voltage	VCBO	60	V	Collector-Emitter Voltage	VCEO	50	V	Emitter-Base Voltage	VEBO	6	V	Collector Current	IC	100	mA	Collector Power Dissipation	PC	450	mW	Thermal Resistance From Junction To Ambient	ROJA	625	℃/W	Junction Temperature	Tj	150	℃	Storage Temperature	Tstg	-55~+150	℃
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ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC= 100μA, IE=0	60	145	200	V
Collector-emitter breakdown voltage	V(BR)CEO	IC= 1mA, IB=0	50	78	100	V
Emitter-base breakdown voltage	V(BR)EBO	IE= 100μA, IC=0	6	10.5	30	V
Collector cut-off current	ICBO	VCB= 60 V , IE=0			0.1	μA
Collector cut-off current	ICEO	VCB= 45V , IE=0			1	μA
Emitter cut-off current	IEBO	VEB= 6V , IC=0			0.1	μA
DC current gain	hFE	VCE=5V, IC= 1mA	200		450	
	hFE	VCE=5V, IC= 10mA	100			
Collector-emitter saturation voltage	VCE(sat)	IC=100 mA, IB= 10mA			0.3	V
Base-emitter saturation voltage	VBE(sat)	IC=100 mA, IB= 10mA			1.3	V
Transition frequency	fT	VCE=6V, IC= 20mA f=30MHz	150			MHz

CLASSIFICATION OF hFE

HEF	200-400	
Rank	L	H
Range	150-200	200-400
MARKING		HF

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

