

TRANSISTOR (NPN)	SOT-23 Plastic-Encapsulate Transistors
<p><u>SOT-23</u></p> <p>1. BASE 2. EMITTER 3. COLLECTOR</p> <p>Marking :G1</p>	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>※ Complimentary to MMBT5401</li> <li>※ Collector Current: <math>I_c=0.6A</math></li> <li>※ Ideal for Medium Power Amplification and Switching</li> </ul>

**MAXIMUM RATINGS (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Collector-Base Voltage	VCBO	180	V
Collector-Emitter Voltage	VCEO	160	V
Emitter-Base Voltage	VEBO	6	V
Collector Current	IC	600	mA
Collector Power Dissipation	PC	300	mW
Thermal Resistance From Junction To Ambient	RθJA	416	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

## 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	180	321	500	V
Collector-emitter breakdown voltage	V(BR)CEO	IC= 1mA, IB=0	160	202	500	V
Emitter-base breakdown voltage	V(BR)EBO	IE= 10μA, IC=0	6	9.5	30	V
Collector cut-off current	ICBO	VCB= 120 V , IE=0			50	nA
Collector cut-off current	ICEO	VCB= 120V , IE=0			0.8	μA
Emitter cut-off current	IEBO	VEB= 4V , IC=0			50	nA
DC current gain	hFE	VCE=5V, IC= 1mA	80			
	hFE	VCE=5V, IC= 10mA	100		250	
	hFE	VCE=5V, IC= 50mA	50			
Collector-emitter saturation voltage	VCE(sat)	IC=10 mA, IB= 1mA			0.15	V
Base-emitter saturation voltage	VBE(sat)	IC=50 mA, IB= 5mA			1	V
Transition frequency	fT	VCE=6V, IC= 20mA f=30MHz	100		300	MHz
Collector Current Capacitance	Cod	VCB= 10V, IE=0, f=1MHz			6	pF

## CLASSIFICATION OF hFE

<b>Rank</b>	<b>L</b>	<b>H</b>
<b>Range</b>	<b>100-200</b>	<b>200-300</b>
<b>MARKING</b>	<b>G1</b>	

## TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

