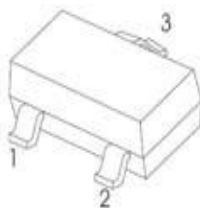
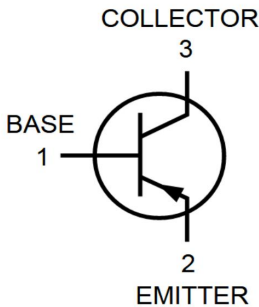


TRANSISTOR (PNP)	SOT-23 Plastic-Encapsulate Transistors																																				
SOT-23  1.BASE 2.EMITTER 3.COLLECTOR  COLLECTOR 3 BASE 1 EMITTER 2 Marking :2F Features ※ Complementary NPN Type available MMBT2222A ※ Collector Current: $I_c=0.6A$ ※ Epitaxial Planar die construction																																					
MAXIMUM RATINGS ($T_a=25^{\circ}C$ 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>V_{CB0}</td><td>-60</td><td>V</td></tr><tr><td>Collector-Emitter Voltage</td><td>V_{CE0}</td><td>-60</td><td>V</td></tr><tr><td>Emitter-Base Voltage</td><td>V_{EB0}</td><td>-5</td><td>V</td></tr><tr><td>Collector Current</td><td>I_C</td><td>-600</td><td>mA</td></tr><tr><td>Collector Power Dissipation</td><td>P_C</td><td>300</td><td>mW</td></tr><tr><td>Thermal Resistance From Junction To Ambient</td><td>$R_{\theta JA}$</td><td>417</td><td>$^{\circ}C/W$</td></tr><tr><td>Junction Temperature</td><td>T_j</td><td>150</td><td>$^{\circ}C$</td></tr><tr><td>Storage Temperature</td><td>T_{stg}</td><td>-55~+150</td><td>$^{\circ}C$</td></tr></table>		Parameter	Symbol	Value	Unit	Collector-Base Voltage	V_{CB0}	-60	V	Collector-Emitter Voltage	V_{CE0}	-60	V	Emitter-Base Voltage	V_{EB0}	-5	V	Collector Current	I_C	-600	mA	Collector Power Dissipation	P_C	300	mW	Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	417	$^{\circ}C/W$	Junction Temperature	T_j	150	$^{\circ}C$	Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$
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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= 10 μ A, IE=0	-60			V
Collector-emitter breakdown voltage	V(BR)CEO	IC= 10mA, IB=0	-60			V
Emitter-base breakdown voltage	V(BR)EBO	IE=10 μ A, IC=0	-5			V
Collector cut-off current	ICBO	VCB=-50 V, IE=0			-20	nA
Collector cut-off current	ICEX	VCE=-30V, VBE(Off)=-0.5V			-10	nA
Base cut-off current	IEBO	VEB= -3V, IC=0			-50	nA
DC current gain	hFE	VCE=-10V, IC= -150mA	100		300	
	hFE	VCE=-10V, IC= -500mA	32			
Collector-emitter saturation voltage	VCE(sat)	IC=-150 mA, IB= -15mA			-0.4	V
Base-emitter saturation voltage	VBE(sat)	IC=-150 mA, IB= -15mA			-1	V
Transition frequency	fT	VCE=-20V, IC= -50mA f=100MHz	200			MHz
Delay time	td	VCE=-30V, Ic=-150mA, IB1=-15mA,			10	ns
Rise time	tr				25	ns
Storage time	ts	VCE=-6V, Ic=-150mA, IB1=-15mA,			225	ns
Fall time	tf				60	ns

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

