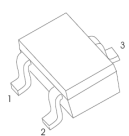


TRANSISTOR (PNP)		SOT-523 Plastic-Encapsulate Transistors					
SOT-523  1. BASE 2. EMITTER 3. COLLECTOR		Features - Epitaxial Planar Die Construction - Complementary NPN Type Available - Also Available in Lead Free Version					
MAXIMUM RATINGS (T _a =25°C unless otherwise noted)							
Symbol	Parameter	Value	Units				
V _{CBO}	Collector-Base Voltage	-40	V				
V _{CEO}	Collector-Emitter Voltage	-40	V				
V _{EBO}	Emitter-Base Voltage	-5.0	V				
I _C	Collector Current -Continuous	-200	mA				
P _C	Collector Power Dissipation	150	mW				
ReJA	Thermal Resistance, Junction to Ambient	833	°C/W				
T _J	Operating Temperature	150	°C				
T _{stg}	Storage Temperature	-55-150	°C				
ELECTRICAL CHARACTERISTICS(T _a =25°C unless otherwise specified)							
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA,I _E =0	-40			V	
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA,I _B =0	-40			V	
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA,I _C =0	-5			V	
Collector cut-off current	I _{CBO}	V _{CB} =-30V,I _E =0			-0.1	μA	
Emitter cut-off current	I _{EBO}	V _{EB} =-5V,I _C =0			-0.1	μA	
Collector cut-off current	I _{CEX}	V _{CB} =-30V,V _{BE(off)} =-3V			-0.	μA	
DC current gain	h _{FE(1)}	V _{CE} =-1V,I _C =-0.1mA	60				
	h _{FE(2)}	V _{CE} =-1V,I _C =-1mA	80				
	h _{FE(3)}	V _{CE} =-1V,I _C =-10mA	100		300		
	h _{FE(4)}	V _{CE} =-1V,I _C =-50mA	60				
	h _{FE(5)}	V _{CE} =-1V,I _C =-100mA	30				
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C =-10mA,I _B =-1mA			-0.25	V	
	V _{CE(sat)2}	I _C =-50mA,I _B =-5mA			-0.4	V	
Base-emitter saturation voltage	V _{BE(sat)1}	I _C =-10mA,I _B =-1mA	-0.65		-0.85	V	
	V _{BE(sat)2}	I _C =-50mA,I _B =-5mA			-0.95	V	
Transition frequency	f _T	V _{CE} =-20V,I _C =-10mA,f=100MHz	250			MHz	
Collector output capacitance	C _{obo}	V _{CB} =-5V,I _E =0,f=1MHz			4.5	pF	
Input capacitance	C _{iob}	V _{EB} =-0.5V,I _E =0,f=1MHz			10	pF	
Noise figure	NF	V _{CE} =-5V,I _C =0.1mA,			4	dB	
Delay time	t _d	f _T V _{CC} =-3V, V _{BE(OFF)} =-0.5V			35	ns	
Rise time	t _r	I _C =-10mA , I _{B1} =-1mA			35	ns	
Storage time	t _s	V _{CC} =-3V, I _C =-10mA			225	ns	
Fall time	t _f	I _{B1} = I _{B2} =-1mA			75	ns	

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

