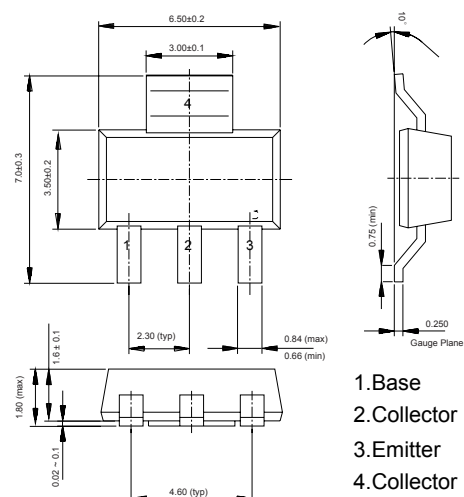


■ Features

- Collector Current Capability $I_C=5A$
- Collector Emitter Voltage $V_{CEO}=10V$
- Low Saturation Voltage

SOT-223



■ Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	35	V
Collector - Emitter Voltage	V_{CEO}	10	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	5	A
Collector Current - Pulse	I_{CP}	20	
Collector Power Dissipation	P_C	2.5	W
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CBO}	I _C = 100 μ A, I _E = 0	35			V
Collector- emitter breakdown voltage	V _{CES}	I _C = 100 μ A, I _B = 0	35			
Collector- emitter breakdown voltage	V _{CEO}	I _C = 1 mA, I _B = 0	10			
Collector- emitter breakdown voltage	V _{CEV}	I _C = 1 mA, V _{EB} = 1V	35			
Emitter - base breakdown voltage	V _{EBO}	I _E = 100 μ A, I _C = 0	5			
Collector-base cut-off current	I _{CBO}	V _{CB} = 20 V , I _E = 0			10	nA
Collector- emitter cut-off current	I _{CES}	V _{CES} = 20 V , I _E = 0			10	
Emitter cut-off current	I _{EBO}	V _{EB} = 4V , I _C =0			10	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500 mA, I _B =10mA			40	mV
		I _C =1 A, I _B =10mA			70	
		I _C =3 A, I _B =15mA			200	
		I _C =5 A, I _B =25mA			350	
Base - emitter saturation voltage	V _{BE(sat)}	I _C =5 A, I _B =25mA			1000	
Base - emitter turn-on voltage	V _{BE(on)}	V _{CE} = 2V, I _C = 5A			975	
DC current gain	h _{FE}	V _{CE} = 2V, I _C = 10mA	280			
		V _{CE} = 2V, I _C = 500mA	290			
		V _{CE} = 2V, I _C = 1A	300		1200	
		V _{CE} = 2V, I _C = 5A	200			
		V _{CE} = 2V, I _C = 20A	60			
Turn-on time	t _{on}	I _C =4A, I _B =40mA, V _{CC} =10V		130		ns
Turn-off time	t _{off}	I _C =4A, I _B = $\pm$ 40mA, V _{CC} =10V		230		
Collector output capacitance	C _{ob}	V _{CB} = 10V, f=1MHz			110	pF
Transition frequency	f _T	V _{CE} = 10V, I _C = 50mA, f=50MHz		150		MHz

Note. Pulse width=300 μ s. Duty cycle $\leq$ 2%

■ Typical Characteristics

