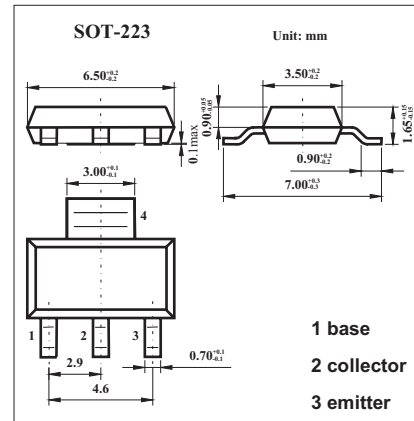


■ **Features**

- $V_{CE0} = 10V$ .
- 5 Amp continuous current.
- 20 Amp pulse current.
- Low saturation voltage.
- High gain.
- Extremely low equivalent on-resistance;  $R_{CE(sat)} = 44m\Omega$  at 5A.



■ **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	V
Emitter-base voltage	$V_{EBO}$	5	V
Peak pulse current	$I_C$	5	A
Continuous collector current	$I_{CM}$	20	A
Base current	$I_B$	500	mA
Power dissipation	$P_{tot}$	2.5	W
Operating and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^\circ C$

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC=100μA	35	65		V
Collector-emitter breakdown voltage *	V(BR)CEO	IC=10mA	10	16		V
Emitter-base breakdown voltage	V(BR)EBO	IE=100μA	5	8.9		V
Collector Cut-Off Current	ICBO	VCB=20V		0.3	10	nA
Collector Emitter Cut-Off Current	ICES	VCE=20V		0.3	10	nA
Emitter Cut-Off Current	IEBO	VEB=4V		0.3	10	nA
Collector-emitter saturation voltage *	VCE(sat)	IC=0.5A, IB=10mA IC=1A, IB=10mA IC=3A, IB=15mA IC=5A, IB=25mA		25 50 140 220	40 70 200 350	mV
Base-emitter saturation voltage *	VBE(sat)	IC=5A, IB=250mA		925	1000	mV
Base-emitter ON voltage *	VBE(on)	IC=5A, VCE=2V		890	975	mV
Static Forward Current Transfer Ratio *	hFE	IC=10mA, VCE=2V*	280	430		
		IC=0.5A, VCE=2V*	290	440		
		IC=1A, VCE=2V*	300	450	1200	
		IC=5A, VCE=2V*	200	330		
		IC=20A, VCE=2V*	60	110		
Transitional frequency	fT	IC=50mA, VCE=10V f=50MHz		150		MHz
Output capacitance	Cobo	VCB=10V, f=1MHz		85	110	pF
Turn-on time	t(on)	IC=4A, VCC=10V		130		ns
Turn-off time	t(off)	IB1=IB2=40mA		230		ns

\* Pulse test: tp = 300 μs; d ≤ 0.02.