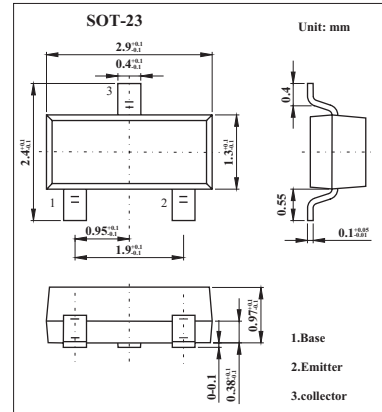


■ Features

- Very low equivalent on-resistance; $R_{CE(sat)}=210m\Omega$ at 1.5A.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-20	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-1	A
Peak pulse current	I_{CM}	-2	A
Base current	I_B	-200	mA
Power dissipation	P_{tot}	-500	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-20	-65		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA^*$	-20	-55		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-5	-8.8		V
Collector-base cut-off current	I_{CBO}	$V_{CB} = -15V$			-10	nA
Emitter-base current	I_{EBO}	$V_{EB} = -4V$			-10	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA^*$		-33	-50	mV
		$I_C = -500mA, I_B = -20mA^*$		-130	-180	
		$I_C = -1A, I_B = -50mA^*$		-230	-320	
		$I_C = -1.5A, I_B = -100mA$		-315	-450	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.25A, I_B = -100mA^*$		-950	-1100	mV
Base-emitter ON voltage	$V_{BE(on)}$	$I_C = -1.25A, V_{CE} = -2V^*$		-850	-1000	mV
DC current gain	h_{FE}	$I_C = -10mA, V_{CE} = -2V$	300	500		
		$I_C = -100mA, V_{CE} = -2V^*$	300	450		
		$I_C = -0.5A, V_{CE} = -2V^*$	200	320		
		$I_C = -1A, V_{CE} = -2V^*$	120	200		
		$I_C = -1.5A, V_{CE} = -2V^*$	50	80		
Current-gain-bandwidth product	f_T	$I_C = -50mA, V_{CE} = -10V, f = 100MHz$		265		MHz
Output capacitance	C_{obo}	$V_{CB} = -10V, f = 1MHz$		9	12	pF
Turn-on time	$t_{(on)}$	$I_C = -1A, V_{CC} = -10V$		108		ns
Turn-off time	$t_{(off)}$	$I_{B1} = I_{B2} = -10mA$		121		ns

* Pulse test: $t_p \leq 300\mu s$; $d \leq 0.02$.

■ Marking

Marking	L78
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