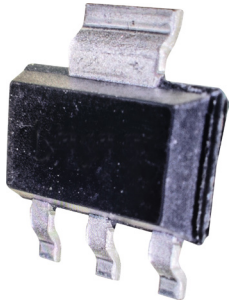


Single Bipolar Transistor multicomp^{PRO}



RoHS
Compliant

Features

- 60 Volt V_{CEO} .
- 3 Amp continuous current.
- Low saturation voltage.

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	60	
Emitter - Base Voltage	V_{EBO}	5	
Peak pulse current	I_C	3	A
Continuous collector current	I_{CM}	6	
Power Dissipation	P_{tot}	2	W
Operating and storage temperature range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu\text{A}$	80			V
Collector- emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C = 10\text{mA}$	60			
Emitter - base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}$	5			
Collector cutoff current	I_{CBO}	$V_{CB}=60\text{V},$ $V_{CEB}= 60\text{V}, T_A = 100^\circ\text{C}$			0.1 10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}$			0.1	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C=1\text{A}, I_B=100\text{mA}$ $I_C=3\text{A}, I_B=300\text{mA}$		0.12 0.43	0.3 0.6	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 1\text{A}, I_B = 100\text{mA}$		0.9	1.25	
Base-Emitter Turn-On Voltage *	$V_{BE(on)}$	$I_C = 1\text{A } V_{CE}=2\text{V}$		0.8	1	
Static Forward Current Transfer Ratio	h_{FE}	$I_C = 50\text{mA}, V_{CE} = 2\text{V}^*$	70	200		
		$I_C = 500\text{mA}, V_{CE} = 2\text{V}^*$	100	200	300	
		$I_C = 1\text{A}, V_{CE} = 2\text{V}^*$	80	170		
		$I_C = 2\text{A } V_{CE} = 2\text{V}^*$	40	80		
Transitional frequency	f_T	$I_C=10\text{mA}, V_{CE}= 5\text{V}, f=100\text{MHz}$	140	175		MHz
Output capacitance	C_{obo}	$V_{CB}= 10\text{V}, f=1\text{MHz}$			30	pF
Switching times	t_{on}	$I_C=500\text{mA}, V_{CC}=10\text{V}, I_{B1}=I_{B2}=50\text{mA}$		45		nS
	t_{off}			800		

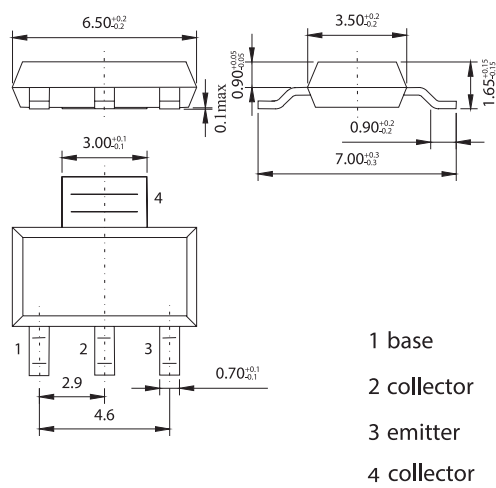
* Pulse test: $t_p = 300 \mu\text{s}; d \leq 0.02$.

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sg.element14.com/b/multicomp-pro

multicomp^{PRO}

Single Bipolar Transistor multicomp^{PRO}

Diagram



Part Number Table

Description	Part Number
Single Bipolar Transistor, NPN, 3A, 60V, SOT 223	FZT651

Dimensions : Millimetres

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