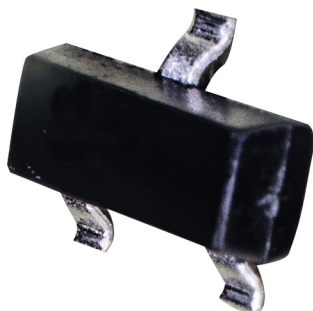


Single Bipolar Transistor multicomp^{PRO}

RoHS
Compliant



Features

- Collector Current Capability $I_C=2A$
- Collector Emitter Voltage $V_{CEO}=50V$

Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}		
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	2	A
Collector Current - Pulse	I_{CP}	6	
Base Current	I_B	0.5	
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

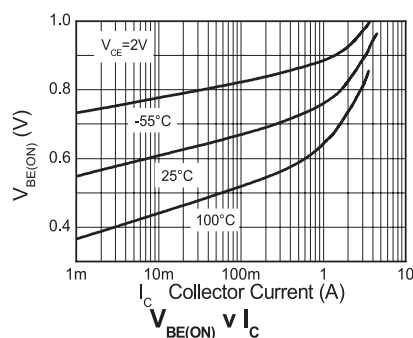
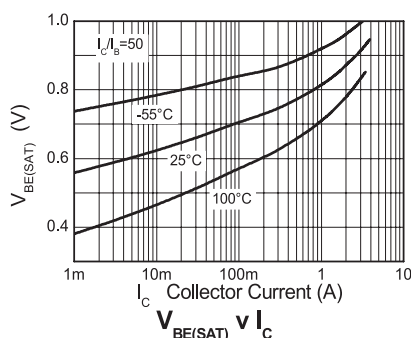
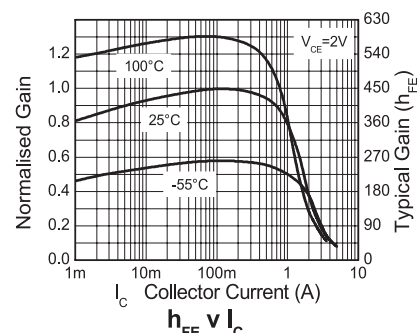
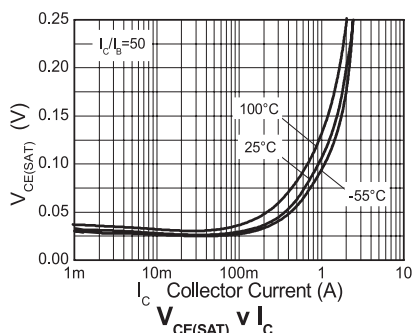
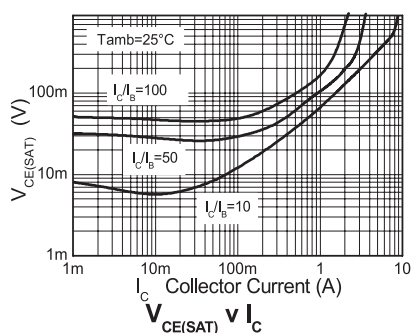
Electrical Characteristics ($T_A = 25^\circ C$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	50			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 10 mA, I_B = 0$				
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			100	nA
Collector- emitter cut-off current	I_{CES}	$V_{CE} = 40V, I_E = 0$				
Emitter cut-off current	I_{EBO}	$V_{EB} = 4V, I_C = 0$				
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 10mA$			20	mV
		$I_C = 1 A, I_B = 10mA$			200	
		$I_C = 2A, I_B = 50mA$			220	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2A, I_B = 50mA$			1	V
Base-emitter turn-on voltage	$V_{BE(on)}$	$V_{CE} = 2V, I_C = 2A$			1	

Single Bipolar Transistor multcomp^{PRO}

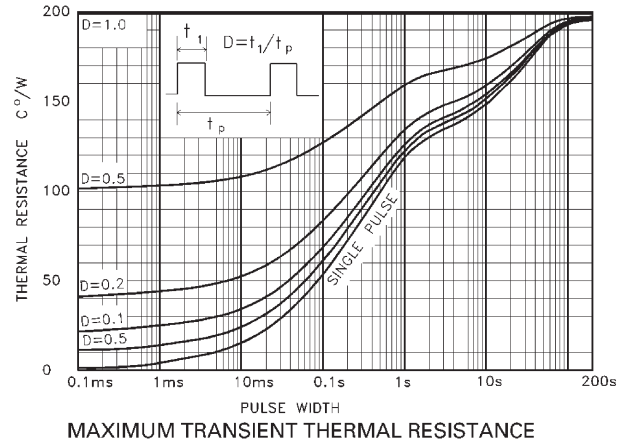
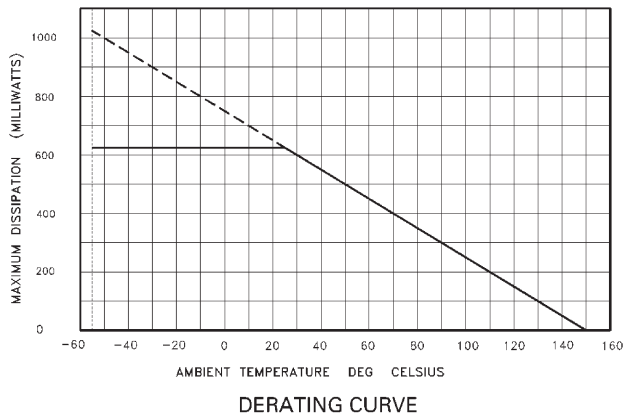
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
DC current gain	h_{FE}	$V_{CE}=2V, I_C=10mA$	200			
		$V_{CE}=2V, I_C=200mA$	300			
		$V_{CE}=2V, I_C=1A$	200			
		$V_{CE}=2V, I_C=2A$	100			
		$V_{CE}=2V, I_C=6A$		40		
Turn-on time	t_{on}	$V_{CC}=10V, I_C=1A$ $I_{B1}=-I_{B2}=10mA$		170		
Turn-off time	t_{off}			750		
Collector output capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$			20	pF
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA, f=100MHz$	100			MHz

Typical Characteristics

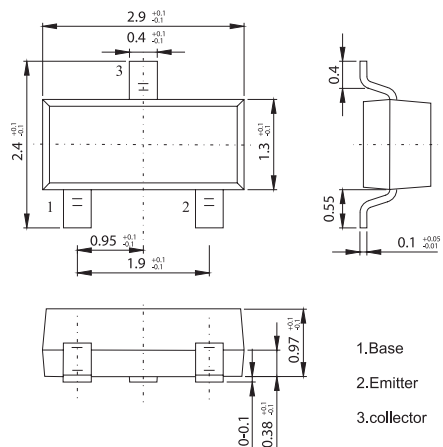


Single Bipolar Transistor multicomp^{PRO}

Typical Characteristics



Diagram



Part Number Table

Description	Part Number
Single Bipolar Transistor, NPN, 2A, 50V, SOT 23	FMMT619

Dimensions : Millimetres

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