

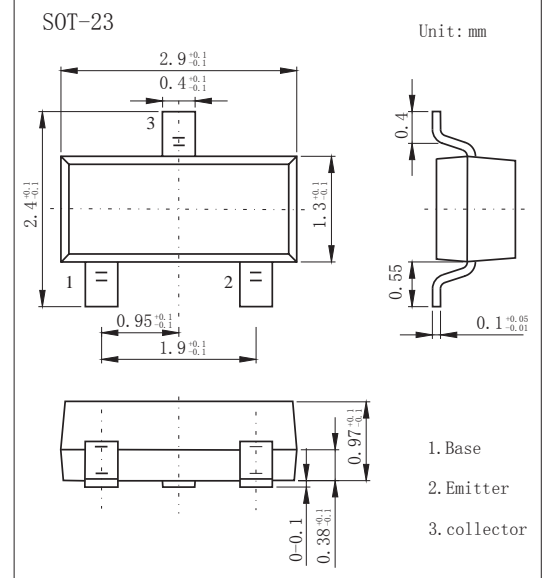
SOT-23 Plastic-Encapsulate Transistors

Features

- Switching transistor
- Extremely low saturation voltage
- Complementary NPN type: FMMT619
- PNP Transistors

MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	-40	V
Collector - Emitter Voltage	V _{CE0}	-40	
Emitter - Base Voltage	V _{EB0}	-5	
Collector Current - Continuous (Note.1)	I _C	-1.5	A
Collector Current - Pulse	I _{CP}	-4	
Base Current	I _B	-0.5	
Collector Power Dissipation	P _C	350	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	357	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-55 to 150	

Note.1: Measured under pulse conditions . Pulse width =300μs. Duty cycle≤2%.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = -100 μA, I _E =0	-40			V
Collector- emitter breakdown voltage	V _{CE0}	I _C = -10 mA, I _B =0	-40			
Emitter - base breakdown voltage	V _{EB0}	I _E = -100 μA, I _C =0	-5			
Collector-base cut-off current	I _{CBO}	V _{CB} = -35 V, I _E =0			-100	nA
Collector- emitter cut-off current	I _{CES}	V _{CE} = -35 V, I _E =0			-100	
Emitter cut-off current	I _{EB0}	V _{EB} = -4V, I _C =0			-100	
Collector-emitter saturation voltage (Note.1)	V _{CE(sat)}	I _C = 100 mA, I _B =-10mA			-45	mV
		I _C = 1 A, I _B =-50mA			-220	
		I _C =-1.5 A, I _B =-100mA			-330	
Base - emitter saturation voltage (Note.1)	V _{BE(sat)}	I _C = -1.5 A, I _B = -75mA			-1	V
Base - emitter voltage (Note.1)	V _{BE(on)}	V _{CE} = -2V, I _C = -1.5A			-1	
DC current gain (Note.1)	h _{FE(1)}	V _{CE} = -2V, I _C = -10mA	200			
	h _{FE(2)}	V _{CE} = -2V, I _C = -100mA	200		600	
	h _{FE(3)}	V _{CE} = -2V, I _C = -1 A	150			
	h _{FE(4)}	V _{CE} = -2V, I _C = -1.5 A	100			
	h _{FE(5)}	V _{CE} = -2V, I _C = -3 A	20			
Turn-on Time	t _{on}	V _{CC} =15V, I _C =0.75A, I _{B1} = I _{B2} =-15mA		40		ns
Turn-off Time	t _{off}			435		
Collector output capacitance	C _{ob}	V _{CB} = -10V, f=1MHz			25	pF
Transition frequency	f _r	V _{CE} = -10V, I _C = -50mA, f=100 MHz	150			MHz

Note.1: Pulse width =300μs. Duty cycle≤2%.

Classification of h_{FE(2)}

Type	FMMT720-L	FMMT720-H
Range	200-350	300-600
Marking	720	720.