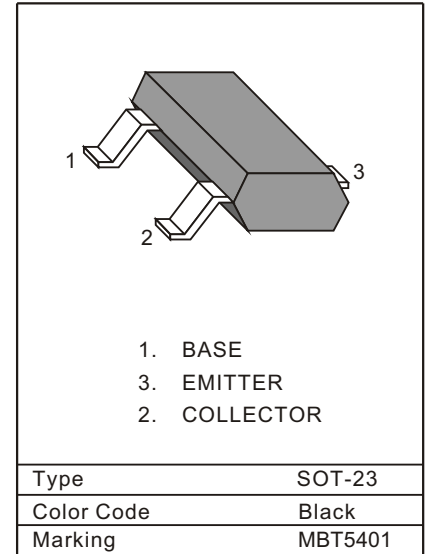


■ MBT5401

SILICON P-N-P HIGH-VOLTAGE TRANSISTOR

■ ABSOLUTE MAXIMUM RATINGS

Descriptions	Symbol	Min.	Typ.	Max.	Unit
Storage Temperature	T _{stg}	-55	-	150	°C
Junction Temperature	T _j	-	-	150	°C
Maximum Power Dissipation (Ta=25°C)	P _{tot}	-	-	250	mW
Maximum Collector to Base Voltage	V _{CB0}	-	-	-160	V
Maximum Collector to Emitter Voltage	V _{CEO}	-	-	-150	V
Maximum Emitter to Base Voltage	V _{EBO}	-	-	-5	V
Maximum Collector Current	I _C	-	-	-500	mA



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Descriptions	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain	V _{CE} =-5V, I _C =-1mA	h _{FE1}	50	-	240	-
	V _{CE} =-5V, I _C =-10mA	h _{FE2}	60	-	-	-
	V _{CE} =-5V, I _C =-50mA	h _{FE3}	50	-	-	-
Gain Bandwidth product	V _{CE} =-10V, I _C =-10mA	f _T	100	-	-	MHz
Output Capacitance	V _{CB} =10V, I _E =0mA, f=1MHz	C _{ob}	-	-	8.0	pF
Collector Cut-off Current	V _{CB} =-120V, I _E =0mA	I _{CBO}	-	-	50	uA
	V _{CB} =-120V, I _E =0mA, T _{amb} =150°C		-	-	50	uA
Collector Saturation Voltage	I _C =-10mA, I _B =-1mA	V _{CE(Sat)}	-	-	0.2	V
	I _C =-50mA, I _B =-5mA		-	-	0.5	V
Base Saturation Voltage	I _C =-10mA, I _B =-1mA	V _{BE(Sat)}	-	-	1	V
	I _C =-50mA, I _B =-5mA		-	-	1	V
Collector to Base Breakdown Voltage	I _C =100uA, I _E =0	BV _{CB0}	160	-	-	V
Collector to Emitter Breakdown Voltage	I _C =1mA, I _B =0	BV _{CEO}	150	-	-	V
Emitter to Base Breakdown Voltage	I _C =0mA, I _E =10uA	BV _{EBO}	5	-	-	V
Small-Signal Current Gain	V _{CB} =-10V, I _E =1mA, f=1kHz	h _{fe}	40	-	200	-

Pulse Test ≤ 300μs, Duty Cycle ≤ 2%

■ THERMAL CHARACTERISTICS

Descriptions	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance at T _j = P(R _{th j-t} + R _{th t-s} + R _{th s-a}) + T _{amb}	R _{th j-a}	-	500	-	K/W

P / N	MBT5401
Marking	2L