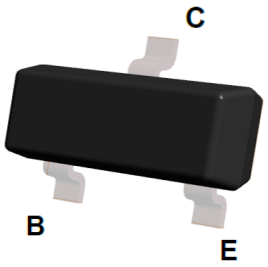
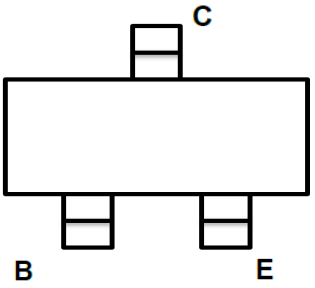
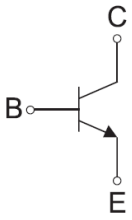
General Purpose Transistors NPN Silicon



Top View



SOT-23



Product Summary

- V_{CEO} 400V
- Ic 0.2A
- P_C 750mW

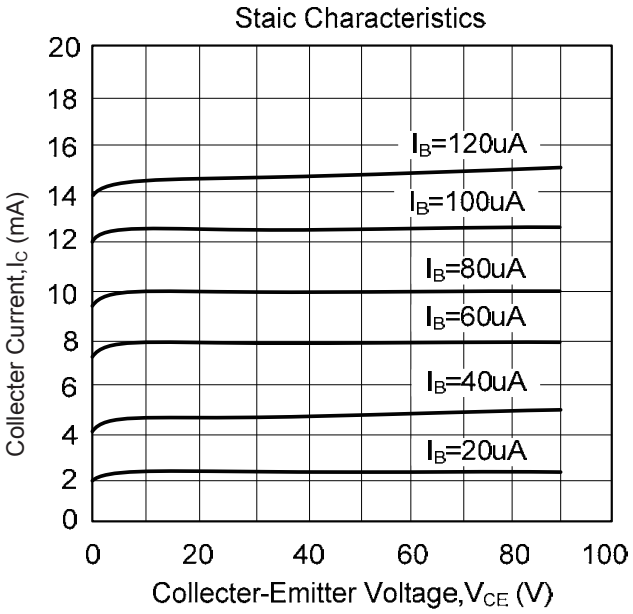
■ MAXIMUM RATINGS (T_A=25℃unless otherwise noted)

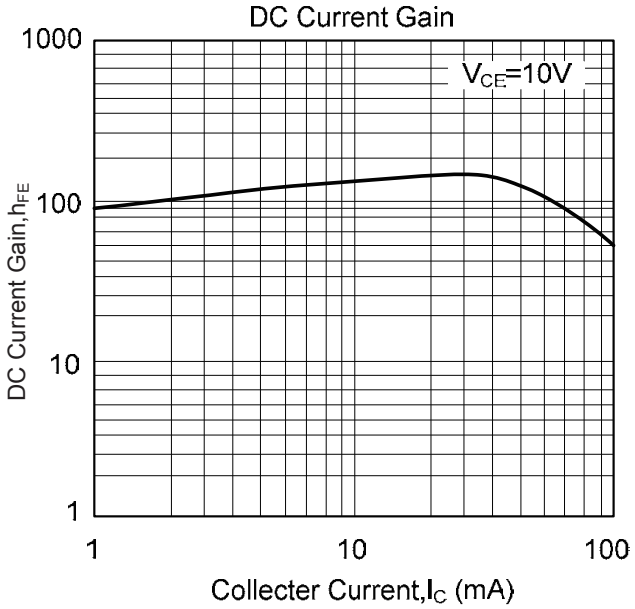
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	600	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current -Continuous	I_C	0.2	A
Power Dissipation	P_C	0.75	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55～+150	℃

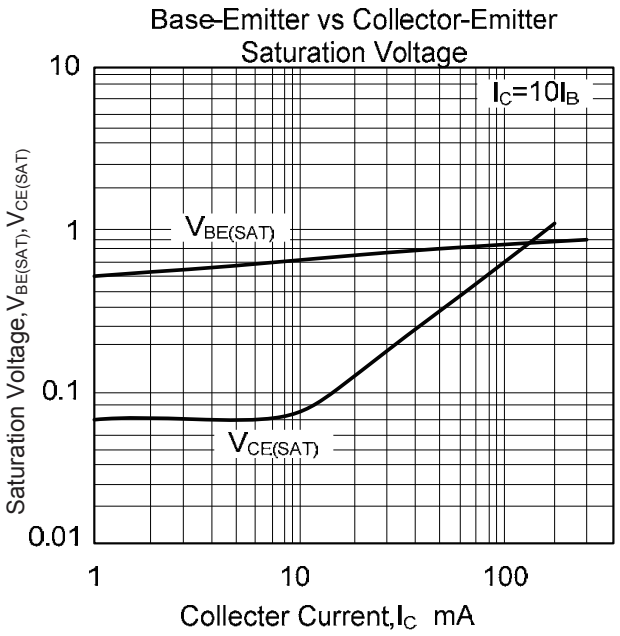
■ Electrical Characteristics (T_J=25℃ unless otherwise noted)

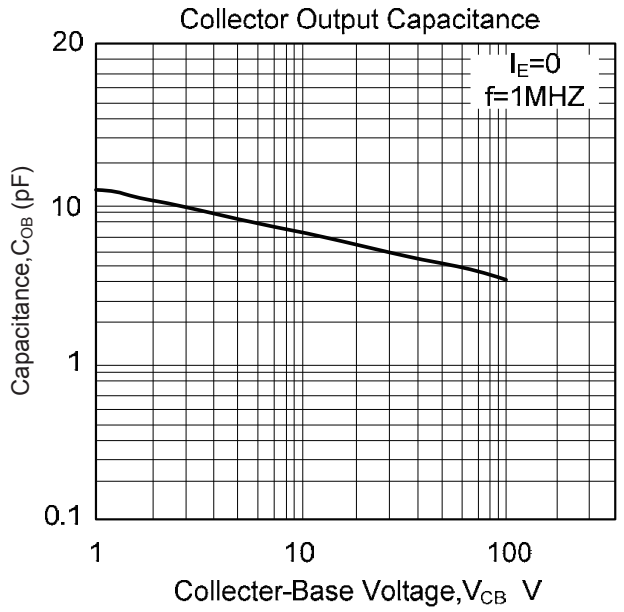
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V_{CBO}	I_C=0.1mA， I_E=0	600			V
Collector- emitter breakdown voltage	V_{CEO}	I_C=1mA， I_B=0	400			
Emitter - base breakdown voltage	V_{EBO}	I_E=0.1mA， I_C=0	7			
Base-emitter voltage	V_{BE}	I_E=100mA			1.1	
Collector cut-off current	I_{CBO}	V_{CB}=600V , I_E=0			100	μA
Collector cut-off current	I_{CEO}	V_{CE}=400V , I_B=0			100	
Emitter cut-off current	I_{EBO}	V_{EB}=7V , I_C=0			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B=20mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=100mA, I_B=20mA			1.2	
DC current gain	$h_{FE(1)}$	V_{CE}=20V, I_C=20mA	10		70	
	$h_{FE(2)}$	V_{CE}=10V, I_C=0.25mA	5			
Storage time	t_s	I_C=50mA, I_{B1}=-I_{B2}=5mA, V_{CC}=45V			1.5	μs
Fall time	t_f				0.3	
Transition frequency	f_T	V_{CE}= 20V, I_C=20mA,f=1MHz	8			MHz

■ Typical Performance Characteristics

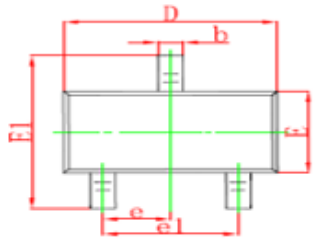


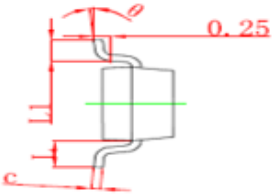


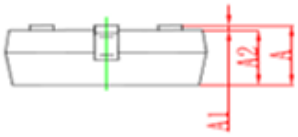




■ SOT-23 Package information







Symbol	Dimentions in Millimeter		Dimentions in Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950Type		0.037Type	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.220REF	
L1	0.300	0.500	0.012	0.020
θ	0 °	8 °	0 °	8 °

■ SOT-23 Suggested Pad Layout