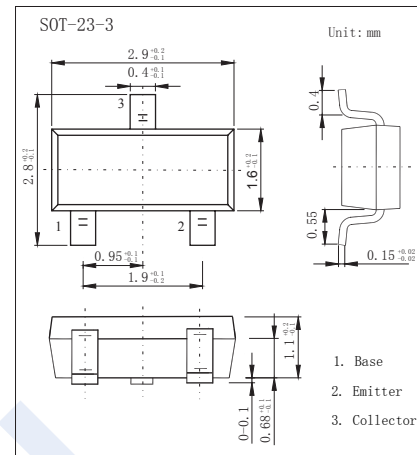


NPN Transistors

2SD602A-HF

■ Features

- Low Collector to Emitter Saturation Voltage
- Mini Type Package
- Complimentary to 2SB710A-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	60	V
Collector - Emitter Voltage	V _{CEO}	50	
Emitter - Base Voltage	V _{EB0}	5	
Collector Current - Continuous	I _C	500	mA
Collector Power Dissipation	P _C	200	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	625	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CB0}	I _C = 100 μA, I _E = 0	60			V
Collector-emitter breakdown voltage	V _{CEO}	I _C = 10 mA, I _B = 0	50			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	I _{CB0}	V _{CB} = 50 V, I _E = 0			0.1	μA
Emitter cut-off current	I _{EB0}	V _{EB} = 5V, I _C =0			0.1	
Collector-emitter saturation voltage (Note.1)	V _{CE(sat)}	I _C =300 mA, I _B =30mA			0.6	V
Base - emitter saturation voltage (Note.1)	V _{BE(sat)}	I _C =300 mA, I _B =30mA			1.2	
DC current gain (Note.1)	h _{FE(1)}	V _{CE} = 10V, I _C = 150mA	85		340	
	h _{FE(2)}	V _{CE} = 10V, I _C = 500mA	40			
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E =0, f=1MHz			15	pF
Transition frequency	f _T	V _{CE} = 10V, I _C = 50mA, f=200MHz		200		MHz

Note.1: Pulse test : Pulse width ≤ 350μs, Duty Cycle ≤ 2%.

■ Classification of h_{FE(1)}

Type	2SD602A-Q-HF	2SD602A-R-HF	2SD602A-S-HF
Range	85-170	120-240	170-340
Marking	XQ _F	XR _F	XS _F