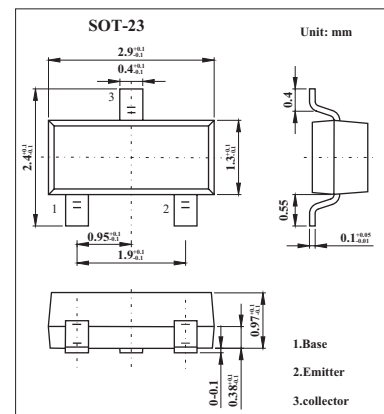


NPN General Purpose Transistor

2PD602A

■ Features

- High current (max. 500 mA)
- Low voltage (max. 50 V).

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	60	V
Collector-emitter voltage	V_{CE0}	50	V
Emitter-base voltage	V_{EB0}	5	V
Collector current (DC)	I_C	500	mA
Peak collector current	I_{CM}	1	A
Peak base current	I_{BM}	200	mA
Total power dissipation $T_{amb} \leq 25^\circ\text{C}$; *	P_{tot}	250	mW
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	T_{amb}	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient *	$R_{th\ j-a}$	500	K/W

* Transistor mounted on an FR4 printed-circuit board.

2PD602A

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Max	Unit	
Collector cut-off current	I _{CBO}	I _E = 0; V _{CB} = 60 V		10	nA	
		I _E = 0; V _{CB} = 60 V; T _j = 150°C		5	μA	
Emitter cut-off current	I _{EBO}	I _C = 0; V _{EB} = 4 V		10	nA	
DC current gain	h _{FE}	I _C = 150 mA; V _{CE} = 10 V; *	2PD602AQ	85	170	
			2PD602AR	120	240	
			2PD602AS	170	340	
DC current gain	h _{FE}	I _C = 500 mA; V _{CE} = 10 V; *				
Collector-emitter saturation voltage	V _{CEsat}	I _C = 300 mA; I _B = 30 mA; *		600	mV	
Collector capacitance	C _c	I _E = i _e = 0; V _{CB} = 10 V; f = 1 MHz		15	pF	
Transition frequency	f _T	I _C = 50 mA; V _{CE} = 10 V; f = 100 MHz *	2PD602AQ	140		MHz
			2PD602AR	160		
			2PD602AS	180		

* Pulse test: t_p ≤ 300 μs; δ ≤ 0.02.

■ Marking

Type Number	2PD602AQ	2PD602AR	2PD602AS
h _{FE}	XQ	XR	XS