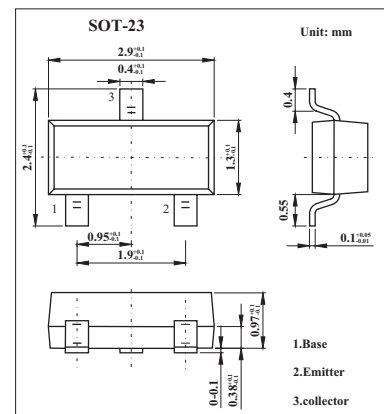


NPN General Purpose Transistor

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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Max	Unit
Collector cut-off current	I_{CBO}	$I_E = 0; V_{CB} = 60\text{ V}$		10	nA
		$I_E = 0; V_{CB} = 60\text{ V}; T_j = 150^\circ\text{C}$		5	μA
Emitter cut-off current	I_{EBO}	$I_C = 0; V_{EB} = 4\text{ V}$		10	nA
DC current gain 2PD602AQ 2PD602AR 2PD602AS	h_{FE}	$I_C = 150\text{ mA}; V_{CE} = 10\text{ V}; *$	85	170	
			120	240	
			170	340	
DC current gain	h_{FE}	$I_C = 500\text{ mA}; V_{CE} = 10\text{ V}; *$			
Collector-emitter saturation voltage	V_{CEsat}	$I_C = 300\text{ mA}; I_B = 30\text{ mA}; *$		600	mV
Collector capacitance	C_c	$I_E = i_e = 0; V_{CB} = 10\text{ V}; f = 1\text{ MHz}$		15	pF
Transition frequency 2PD602AQ 2PD602AR 2PD602AS	f_T	$I_C = 50\text{ mA}; V_{CE} = 10\text{ V}; f = 100\text{ MHz} *$	140		MHz
			160		
			180		

* Pulse test: $t_p \leq 300\text{ }\mu\text{s}; \delta \leq 0.02$.

■ Marking

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