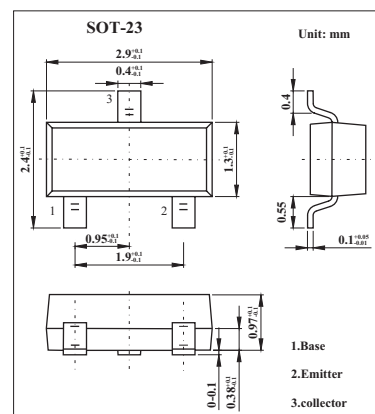


NPN General Purpose Transistor

2PD601A

■ Features

- Low current (max. 100 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}	6	V
Collector current (DC)	I_C	100	mA
Peak collector current	I_{CM}	200	mA
Peak base current	I_{BM}	100	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.

2PD601A■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	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}	$I_C = 0; V_{EB} = 5\text{ V}$			10	nA
DC current gain	2PD601AQ	$I_C = 2\text{ mA}; V_{CE} = 10\text{ V}; *$	160		260	
	2PD601AR		210		340	
	2PD601AS		290		460	
DC current gain	h_{FE}	$I_C = 100\text{ mA}; V_{CE} = 2\text{ V};$	90			
Collector-emitter saturation voltage	V_{CEsat}	$I_C = 100\text{ mA}; I_B = 10\text{ mA}; *$			500	mV
Collector capacitance	C_c	$I_E = I_C = 0; V_{CB} = 10\text{ V}; f = 1\text{ MHz}$			3.5	pF
Transition frequency	2PD601AQ	$I_C = 2\text{ mA}; V_{CE} = 10\text{ V}; f = 100\text{ MHz} *$	100			MHz
	2PD601AR		120			
	2PD601AS		140			

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

■ Marking

Type Number	2PD601AQ	2PD601AR	2PD601AS
Marking	ZQ	ZR	ZS