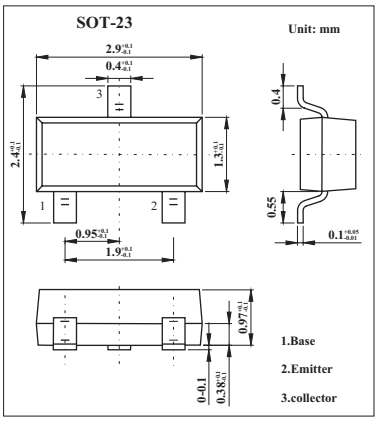
NPN General Purpose Transistor

2PD601A



■ Features

- Low current (max. 100 mA)
- Low voltage (max. 50 V).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	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 Tamb≤25℃; *	P_{tot}	250	mW
Storage temperature	T_{stg}	-65 to +150	℃
Junction temperature	T_j	150	℃
Operating ambient temperature	T_{amb}	-65 to +150	℃
Thermal resistance from junction to ambient *	$R_{th\ j\text{-}a}$	500	K/W

* Transistor mounted on an FR4 printed-circuit board.

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■ Electrical Characteristics Ta = 25℃

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

* Pulse test: tp≤300 μs; δ≤0.02.

■ Marking

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