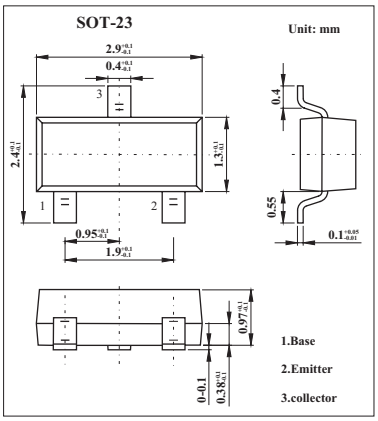
NPN General Purpose Transistor

2PD602A



■ Features

- High current (max. 500 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}	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 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	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} = 4 V		10	nA
DC current gain	2PD602AQ	h_{FE}	I_C = 150 mA; V_{CE} = 10 V; *	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 = ie = 0; V_{CB} = 10 V; f = 1 MHz		15	pF
Transition frequency	2PD602AQ	f_T	I_C = 50 mA; V_{CE} = 10 V; f = 100 MHz *	140		MHz
	2PD602AR			160		
	2PD602AS			180		

* Pulse test: tp≤300 μs; δ≤0.02.

■ Marking

Type Number	2PD602AQ	2PD602AR	2PD602AS
hFE	XQ	XR	XS