



ShenzhenTaimaoTechnology Co.,Ltd.

SOT-323 Plastic-Encapsulate Transistors

2PD601AW TRANSISTOR (NPN)

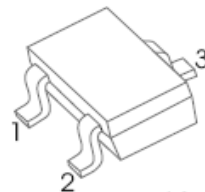
FEATURES

- High Collector Current
- Low Collector-Emitter Saturation Voltage

APPLICATIONS

- General Purpose Switching and Amplification

SOT - 323



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_{C}	Collector Current	100	mA
P_{C}	Collector Power Dissipation	200	mW
$R_{\theta\text{JA}}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C/W}$
T_{j}	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=100\mu\text{A}$, $I_{\text{E}}=0$	60			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=1\text{mA}$, $I_{\text{B}}=0$	50			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=100\mu\text{A}$, $I_{\text{C}}=0$	6			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=60\text{V}$, $I_{\text{E}}=0$			10	nA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=5\text{V}$, $I_{\text{C}}=0$			10	nA
DC current gain	$h_{\text{FE}(1)}^*$	$V_{\text{CE}}=2\text{V}$, $I_{\text{C}}=100\text{mA}$	90			
	$h_{\text{FE}(2)}$	$V_{\text{CE}}=10\text{V}$, $I_{\text{C}}=2\text{mA}$	160		460	
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}^*$	$I_{\text{C}}=100\text{mA}$, $I_{\text{B}}=10\text{mA}$			0.5	V
Transition frequency	f_{T}	$V_{\text{CE}}=10\text{V}$, $I_{\text{C}}=2\text{mA}$, $f=100\text{MHz}$	2PD601AQW 100			MHz
			2PD601ARW 120			
			2PD601ASW 140			
Collector output capacitance	C_{ob}	$V_{\text{CB}}=10\text{V}$, $I_{\text{E}}=0$, $f=1\text{MHz}$			3.5	pF

*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2.0\%$.

CLASSIFICATION OF $h_{\text{FE}(2)}$

RANK	Q	R	S
RANGE	160 - 260	210 - 340	290 - 460
MARKING	6D	6E	6F