

SOT-323 Plastic-Encapsulate Transistors

2PD601AW TRANSISTOR (NPN)

FEATURES

- High Collector Current
- Low Collector-Emitter Saturation Voltage

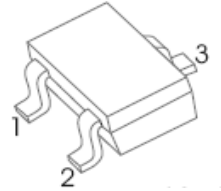
APPLICATIONS

- General Purpose Switching and Amplification

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
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

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1. BASE
2. EMITTER
3. COLLECTOR

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

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

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

CLASSIFICATION OF $h_{FE(2)}$

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