

### FTC1027 TRANSISTOR (NPN)

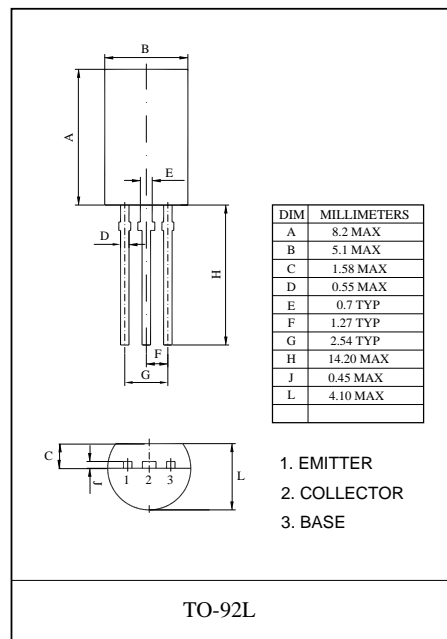
#### FEATURES

- Complementary to FTA1023
- High Voltage Applications

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

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Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	120	V
$V_{CE0}$	Collector-Emitter Voltage	120	V
$V_{EB0}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	0.8	A
$P_C$	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	$^\circ\text{C}/\text{W}$
$T_j$	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	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=120\text{V}, I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=100\text{mA}$	80		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			1	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=5\text{V}, I_C=500\text{mA}$			1	V
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			30	pF
Transition frequency	$f_T$	$V_{CE}=5\text{V}, I_C=100\text{mA}$		120		MHz

#### CLASSIFICATION OF $h_{FE}$

RANK	O	Y
RANGE	80-160	120-240

