

TO-92L Plastic-Encapsulate Transistors

3DG8051 TRANSISTOR (NPN)

FEATURES

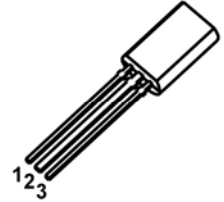
- General Purpose Switching Application
- Complementary to 3CG8551

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

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	2	A
P_C	Collector Power Dissipation	750	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	167	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

TO - 92L

1. EMITTER
2. COLLECTOR
3. BASE



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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=0.1\text{mA}, I_E=0.50$				V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0.40$				V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=0.1\text{mA}, I_C=0.5$				V
Collector cut-off current	I_{CBO}	$V_{CB}=50\text{V}, I_E=0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=40\text{V}, I_B=0$			2	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=2\text{V}, I_C=0.1\text{A}$	100	320		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1\text{A}, I_B=0.1\text{A}$			1	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	150			MH