

Signal Transistors

GES5401, GES5551

Silicon Transistors



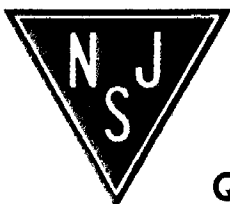
TO-92

MAXIMUM RATINGS, Absolute-Maximum Values:

	GES5401	GES5551	
COLLECTOR TO EMITTER VOLTAGE (V_{CE0})	-150	160	V
EMITTER TO BASE VOLTAGE (V_{EB0})	-5	5	V
COLLECTOR TO BASE VOLTAGE (V_{CB0})	-160	180	V
CONTINUOUS COLLECTOR CURRENT (I_C)	-600	800	mA
TOTAL POWER DISSIPATION ($T_A \leq 25^\circ\text{C}$) (P_T)	350		mW
TOTAL POWER DISSIPATION ($T_C \leq 25^\circ\text{C}$) (P_T)	1		W
DERATE FACTOR ($T_A > 25^\circ\text{C}$)	2.6		mW/°C
DERATE FACTOR ($T_C > 25^\circ\text{C}$)	8		mW/°C
OPERATING TEMPERATURE (T_J)	-55 to +150		°C
STORAGE TEMPERATURE (T_{STG})	-55 to +150		°C
LEAD TEMPERATURE, $1/16" \pm 1/32"$ (1.58mm \pm 0.8mm) from case for 10s max (T_L)	-260		°C

ELECTRICAL CHARACTERISTICS, At Ambient Temperature (T_A) = 25°C Unless Otherwise Specified

CHARACTERISTICS	SYMBOL	LIMITS				
		GES5401		GES5551		
		MIN.	MAX.	MIN.	MAX.	
Collector-Emitter Breakdown Voltage ($I_C = 1\text{ mA}, I_B = 0$)	$V_{(BR)ECO}$	-150	-	180	-	V
Collector-Base Breakdown Voltage ($I_C = 100\ \mu\text{A}, I_E = 0$)	$V_{(BR)CBO}$	-160	-	180	-	V
Emitter-Base Breakdown Voltage ($I_E = 10\ \mu\text{A}, I_C = 0$)	$V_{(BR)EBO}$	-5	-	5	-	V
Collector-Cutoff Current ($V_{CB} = -100\text{ V}, I_E = 0$) ($V_{CB} = 120\text{ V}, I_E = 0$)	I_{CBO}	-	50	-	-	nA
Emitter Cutoff Current ($I_{EB} = 4\text{ V}, I_C = 0$)	I_{EBO}	-	50	-	50	nA
Collector-Emitter Saturation Voltage ($I_C = 10\text{ mA}, I_B = 1\text{ mA}$) ($I_C = 50\text{ mA}, I_B = 5\text{ mA}$)	$V_{CE(sat)}$	-	0.2	-	0.15	V
Base-Emitter Saturation Voltage ($I_C = 10\text{ mA}, I_B = 1\text{ mA}$) ($I_C = 50\text{ mA}, I_B = 5\text{ mA}$)	$V_{BE(sat)}$	-	1	-	1	V



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

Signal Transistors

GES5401, GES5551

ELECTRICAL CHARACTERISTICS, At Ambient Temperature (T_A) = 25°C Unless Otherwise Specified (Cont'd)

CHARACTERISTICS	SYMBOL	LIMITS			
		GES5401		GES5551	
		MIN.	MAX.	MIN.	MAX.
DC Forward Current Transfer Ratio	h_{FE}	50	~	80	—
$V_{CE} = 5V, I_C = 1\text{ mA}$		60	240	80	250
$V_{CE} = 5V, I_C = 10\text{ mA}$		60	—	30	—
$V_{CE} = 5V, I_C = 50\text{ mA}$					
Gain-Bandwidth Product ($I_C = 20\text{ mA}, V_{CE} = 20\text{ V}, F = 20\text{ MHz}$)	F_T	50	—	50	—
					MHZ

TERMINAL CONNECTIONS

- Lead 1 - Emitter
- Lead 2 - Base
- Lead 3 - Collector