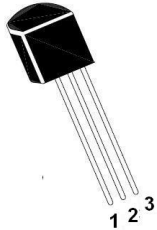


## NPN SILICON PLANNAR MEDIUM POWER TRANSISTOR



1. EMITTER
2. BASE
3. COLLECTOR

**2N6731**  
**TO-92**  
**Plastic Package**

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

PARAMETERS	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	80	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Peak Pulse Current	$I_{CM}$	2	A
Continuous Collector Current	$I_C$	1	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 to 200	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

PARAMETER	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	100	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0, *$	80	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	5	-	V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=80\text{V}, I_E=0$	-	0.1	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$	-	10	$\mu\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_B=35\text{mA}, I_C=350\text{mA} *$	-	0.35	V
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	$V_{CE}=2\text{V}, I_C=350\text{mA} *$	-	1.0	V
Static Forward Current Transfer Ratio	$h_{FE}$	$V_{CE}=2\text{V}, I_C=10\text{mA} *$	100	-	
		$V_{CE}=2\text{V}, I_C=350\text{mA} *$	100	300	
Transition Frequency	$f_T$	$I_C=200\text{mA}, V_{CE}=5\text{V}, f=20\text{MHz}$	50	500	MHz
Collector-Base Capacitance	$C_{CB}$			20	pF

\* Measured under pulsed conditions, Pulse width=300  $\mu\text{s}$ , Duty cycle  $\leq 2\%$



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## Customer Notes:

### Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

### DISCLAIMER

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).



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