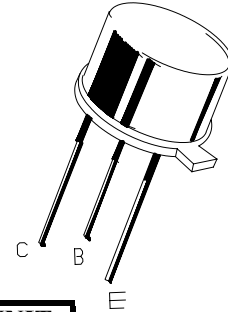




**DEVICE SPECIFICATION**

TYPE : SL100  
POLARITY : N P N  
APPLICATION : General Purpose Medium Power Transistor  
PACKAGE : TO - 39



**MAXIMUM RATINGS:**

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
Collector - Emitter Voltage	$BV_{CEO}$	50	-	V
Collector - Base Voltage	$BV_{CBO}$	60	-	V
Emitter - Base Voltage	$BV_{EBO}$	5.0	-	V
Total Power Dissipation @ $T_A = 25^\circ C$	$P_D$		800	mW
Collector Current	$I_C$		0.5	A
Operating & Storage Junction Temperature	$T_j, T_{stg}$		- 65 to 200	$^\circ C$

**Electrical characteristics ( $T_A = 25^\circ C$ , unless otherwise specified)**

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
<b><u>OFF CHARACTERISTICS</u></b>				
Collector - Emitter Breakdown Voltage ( $I_C = 10 \text{ mA dc}, I_B = 0$ )	$BV_{CEO}$	50	-	V
Collector - Base Breakdown Voltage ( $I_C = 100 \mu A, I_E = 0$ )	$BV_{CBO}$	60	-	V
Emitter - Base Breakdown voltage ( $I_E = 100 \mu A, I_C = 0$ )	$BV_{EBO}$	5	-	V
Collector Cut - off Current ( $V_{CB} = 40V \text{ dc}, I_E = 0$ )	$I_{CBO}$	-	50	nA
Emitter - Cut off current ( $V_{EB} = 4V \text{ dc}, I_C = 0$ )	$I_{EBO}$	-	25	nA



CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
<b><u>ON CHARACTERISTICS</u></b> *				
DC Current gain ( $I_C = 10\text{mA dc}$ , $V_{CE} = 10\text{V dc}$ )	hFE (1)	25	-	
( $I_C = 150\text{mA dc}$ , $V_{CE} = 10\text{V dc}$ )	hFE	40	300	
Collector - Emitter saturation Voltage ( $I_C = 150\text{mA dc}$ , $I_B = 15\text{mA dc}$ )	VCE(sat)	-	0.6	V
Base - Emitter saturation voltage ( $I_C = 150\text{mA dc}$ , $I_B = 15\text{mA dc}$ )	VBE(sat)	-	1.3	V

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
<b><u>SMALL SIGNAL CHARACTERISTICS</u></b>				
Output Capacitance ( $V_{CB} = 10\text{V}$ , $I_E = 0$ , $f = 140\text{KHz}$ )	$C_{obo}$	-	20	pf

hFE Classification	SL 100B
hFE (1)	100 - 300

\* Pulse Test : Pulse width  $\leq 300 \mu\text{s}$  , Duty Cycle  $\leq 2.0\%$