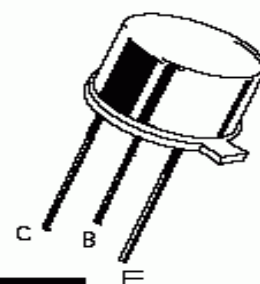


### DEVICE SPECIFICATION

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 @ $T_A = 25^\circ\text{C}$	$P_D$		800	mW
Collector Current	$I_C$		0.5	A
Operating & Storage Junction Temperature	$T_j, T_{stg}$		- 65 to 200	$^\circ\text{C}$

#### Electrical characteristics ( $T_A = 25^\circ\text{C}$ , unless otherwise specified)

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

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

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

$h_{FE}$ Classification	SL 100B
$h_{FE} (1)$	100 - 300

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