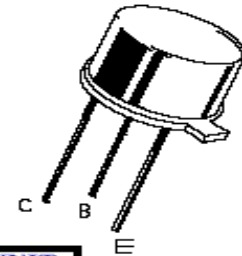


DEVICE SPECIFICATION

TYPE : SK100
POLARITY : P N P
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
OFF CHARACTERISTICS				
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
ON CHARACTERISTICS *				
DC Current gain ($I_C = 10\text{ mA dc}, V_{CE} = 10V\text{ dc}$)	$h_{FE} (1)$	25	-	
($I_C = 150\text{ mA dc}, V_{CE} = 10V\text{ dc}$)	h_{FE}	40	300	
Collector - Emitter saturation Voltage ($I_C = 150\text{ mA dc}, I_B = 15\text{ mA dc}$)	$V_{CE(sat)}$	-	0.6	V
Base - Emitter saturation voltage ($I_C = 150\text{ mA dc}, I_B = 15\text{ mA dc}$)	$V_{BE(sat)}$	-	1.3	V

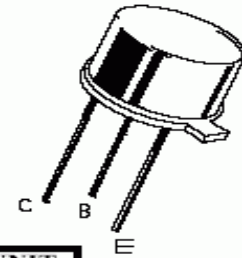
CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
SMALL SIGNAL CHARACTERISTICS				
Output Capacitance ($V_{CB} = 10V, I_E = 0, f = 140\text{ KHz}$)	C_{obo}	-	20	pf

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

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

DEVICE SPECIFICATION

TYPE	: SL100
POLARITY	: NPN
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
<u>OFF CHARACTERISTICS</u>				
Collector - Emitter Breakdown Voltage ($I_C = 10\text{ mA dc}, I_E = 0$)	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
<u>ON CHARACTERISTICS *</u>				
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 ($I_C = 150\text{mA dc}, I_E = 15\text{mA dc}$)	$V_{CE}(\text{sat})$	-	0.6	V
Base - Emitter saturation voltage ($I_C = 150\text{mA dc}, I_E = 15\text{mA dc}$)	$V_{BE}(\text{sat})$	-	1.3	V

CHARACTERISTIC	SYMBOL	MIN	MAX	UNIT
<u>SMALL SIGNAL CHARACTERISTICS</u>				
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 $\leq 2.0\%$