

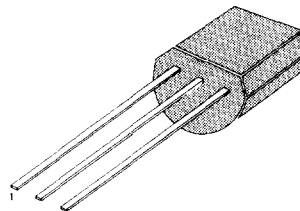
HIGH VOLTAGE TRANSISTOR

- Collector-Emitter Voltage: $V_{CE0} = 300V$
- Collector Dissipation: $P_C (\text{max}) = 625mW$

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ C$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$

TO-92



1. Emitter 2. Base 3. Collector

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
*Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	300			V
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	300			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	6			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 200V, I_E = 0$			100	nA
Emitter Cut-off Current	I_{EBO}	$V_{BE} = 6V, I_C = 0$			100	nA
*DC Current Gain	h_{FE}	$I_C = 1mA, V_{CE} = 10V$	25			
		$I_C = 10mA, V_{CE} = 10V$	40			
		$I_C = 30mA, V_{CE} = 10V$	40			
*Collector-Emitter Saturation Voltage	$V_{CE} (\text{sat})$	$I_C = 20mA, I_B = 2mA$			0.5	V
*Base-Emitter Saturation Voltage	$V_{BE} (\text{sat})$	$I_C = 20mA, I_B = 2mA$			0.9	V
Current Gain Bandwidth Product	f_T	$I_C = 10mA, V_{CE} = 20V$ $f = 100MHz$	50			MHz
Collector-Base Capacitance	C_{cb}	$V_{CB} = 20V, I_E = 0$ $f = 1MHz$			3	pF

* Pulse Test: Pulse Width = $300\mu s$, Duty Cycle = 2%

