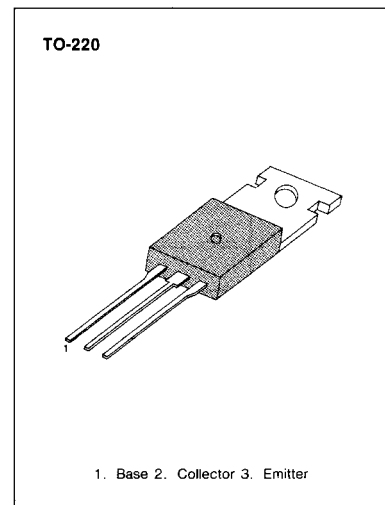


# NPN Transistor KSC1983 datasheet

## HIGH $\beta$ POWER TRANSISTOR

### ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	80	V
Collector-Emitter Voltage	$V_{CE0}$	60	V
Emitter-Base Voltage	$V_{EB0}$	6	V
Collector Current	$I_C$	3	A
Base Current	$I_B$	1	A
Collector Dissipation ( $T_c = 25^\circ\text{C}$ )	$P_C$	30	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55~150	$^\circ\text{C}$



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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CB0}$	$V_{CB} = 80\text{V}, I_E = 0$			100	$\mu\text{A}$
Emitter Cutoff Current	$I_{EB0}$	$V_{EB} = 6\text{V}, I_C = 0$			100	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	$I_C = 25\text{mA}, I_B = 0$	60			V
*DC Current Gain	$h_{FE}$	$V_{CE} = 4\text{V}, I_C = 0.5\text{A}$	500			
*Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{A}, I_B = 0.05\text{A}$			1	V
Current Gain Bandwidth Product	$f_T$	$V_{CE} = 12\text{V}, I_E = 0.2\text{A}$		15		MHz

\*Pulse Test:  $PW \leq 350\mu\text{S}$ , Duty Cycle  $\leq 2\%$  pulsed

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