

■■ APPLICATION: General Purpose Applications.

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CB0}	-35	V
Collector-emitter voltage	V_{CEO}	-30	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.5	A
Collector Power Dissipation	P_C	0.5	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55~150	$^\circ\text{C}$


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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
DC Current Gain	h_{FE}	70		400		$V_{CE} = -1V, I_C = -100mA$
Collector Cut-off Current	I_{CBO}			-0.1	μA	$V_{CB} = -35V, I_E = 0$
Emitter Cut-off Current	I_{EBO}			-0.1	μA	$V_{EB} = -5V, I_C = 0$
Collector-Base Breakdown Voltage	BV_{CB0}	-35			V	$I_C = -0.02mA, I_E = 0$
Collector-Emitter Breakdown Voltage	BV_{CEO}	-30			V	$I_C = -1mA, I_B = 0$
Emitter-Base Breakdown Voltage	BV_{EBO}	-5			V	$I_E = -0.02mA, I_C = 0$
Base-Emitter Voltage	V_{BE}		-0.8	-1	V	$V_{CE} = -1V, I_C = -100mA$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.25	V	$I_C = -100mA, I_B = -10mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1	V	$I_C = -100mA, I_B = -10mA$
Gain bandwidth product	f_T		150		MHz	$I_C = -20mA, V_{CE} = -6V$
Common Base Output Capacitance	C_{ob}		13		PF	$V_{CB} = -6V, I_E = 0, f = 1MHz$

■■ h_{FE} Classification

Classification	O	Y	GR
h_{FE}	70~140	120~240	200~400