

■■ APPLICATION: High Voltage Switching Applications.

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CB0}	300	V
Collector-emitter voltage	V_{CEO}	300	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	100	mA
Collector Power Dissipation	P_C	1	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}	30		150		$V_{CE}=10\text{V}$, $I_C=20\text{mA}$
Collector Cut-off Current	I_{CB0}			1	μA	$V_{CB}=240\text{V}$, $I_E=0$
Emitter Cut-off Current	I_{EBO}			1	μA	$V_{EB}=7\text{V}$, $I_C=0$
Collector-Base Breakdown Voltage	BV_{CB0}	300			V	$I_C=0.1\text{mA}$, $I_E=0$
Collector-Emitter Breakdown Voltage	BV_{CEO}	300			V	$I_C=1\text{mA}$, $I_B=0$
Emitter-Base Breakdown Voltage	BV_{EBO}	7			V	$I_E=0.1\text{mA}$, $I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			1	V	$I_C=10\text{mA}$, $I_B=1\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1	V	$I_C=10\text{mA}$, $I_B=1\text{mA}$
Gain bandwidth product	f_T	50			MHz	$I_C=20\text{mA}$, $V_{CE}=10\text{V}$
Common Base Output Capacitance	C_{ob}		3		PF	$V_{CB}=20\text{V}$, $I_E=0$, $f=1\text{MHz}$

■■ h_{FE} Classification

Classification

 h_{FE}

30~150