

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	150	V
Collector-Emitter Voltage		V_{CEO}	150	V
Emitter-Base Voltage		V_{EBO}	5.0	V
Collector Current	Continuous	I_C	1.5	A
	Peak	I_{CM}	3.0	A
Base Current		I_B	0.5	A
Total Power Dissipation @ $T_C=25^\circ\text{C}$		P_D	25	W
Derate above 25°C			0.2	W/ $^\circ\text{C}$
Junction Temperature		T_J	-55~+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55~+150	$^\circ\text{C}$

Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Junction-to-Case	θ_{JC}	5.0	$^\circ\text{C}/\text{W}$

■ ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=1.0\text{mA}, I_B=0$	150			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=5.0\text{mA}, I_B=0$	150			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_B=1.0\text{mA}, I_C=0$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=120\text{V}, I_E=0$			10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}, I_C=0$			10	μA
ON CHARACTERISTICS (Note 1)						
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}, I_C=0.5\text{A}$	40		140	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=0.5\text{A}, I_B=50\text{mA}$			1.5	V
Base-Emitter On Voltage	$V_{BE(ON)}$	$I_C=500\text{mA}, V_{CE}=10\text{V}$	0.65		0.85	V
DYNAMIC CHARACTERISTICS						
Current-Gain -Bandwidth Product	f_T	$I_C=0.5\text{A}, V_{CE}=10\text{V}, f=1.0\text{MHz}$	4.0			MHz

Notes: Pulse Test: Pulse Width=300 μs , Duty Cycle \leq 2.0%.

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