



HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

1 Features

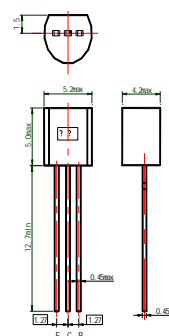
- HIGH VOLTAGE CAPABILITY
- LOW SPREAD OF DYNAMIC PARAMETERS
- VERY HIGH SWITCHING SPEED
- LARGE RBSOA
- LOW $V_{CE(SAT)}$

2 Electrical Characteristics

2.1 Absolute Maximum Ratings

$T_{amb}=25$ unless otherwise noted

Parameter	Symbol	Value	units
Collector-Emitter Voltage($V_{BE}=0$)	V_{CES}	600	V
Collector-Base Voltage($I_E=0$)	V_{CBO}	600	V
Collector-Emitter Voltage($I_B=0$)	V_{CEO}	400	V
Emitter-Base Voltage($I_C=0$)	V_{EBO}	9	V
Collector Current(DC)	I_C	0.4	A
Collector Current(Pulse)	I_{cp}	0.8	A
Total Dissipation $T_a=25$	P_{tot}	0.8	W
Storage Temperature	T_{stg}	-55-150	
Max Operating Junction Temperature	T_j	150	



2.2 Electrical Characteristics

$T_{amb}=25$ unless otherwise noted

Parameter	Symbol	Test Conditions	Value			unit
			min	typ	max	
Collector-Base Cut-off Current	I_{CB0}	$V_{CB}=600V, I_E=0$			100	μA
Emitter-Base Cut-off Current	I_{EB0}	$V_{EB}=9V, I_C=0$			100	μA
Dc Current Gain	h_{FE}	$V_{CE}=20V, I_C=0.02A$	10		40	
Collector-Emitter Saturation Voltage	$V_{CE sat}$	$I_C=0.1A, I_B=1mA$			0.6	V
Base-Emitter Saturation Voltage	$V_{BE sat}$	$I_C=0.1A, I_B=1mA$			1.2	V
Storage Time	t_s	$I_C=0.1A, I_B=1mA$			6	μs
Current Gain Bandwidth Product	f_T	$V_{CE}=10V, I_C=0.05A$ $f=1MHz$	5			MHz