

High Voltage Switch Mode Application

High Speed Switching

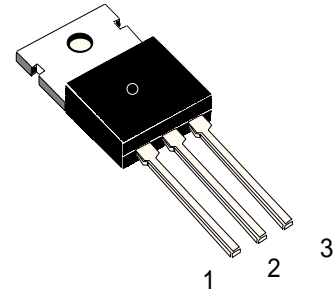
Suitable for Switching Regulator and Motor Control

ABSOLUTE MAXIMUM RATINGS

(Ta=25)

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	VCBO	700	V
Collector-Emitter Voltage	VCEO	400	V
Emitter-Base voltage	VEBO	9	V
Collector Current	IC	12	A
Base Current	IB	6	A
Collector Power Dissipation	PC	100	W
Junction Temperature	Tj	150	
Storage Temperature	Tstg	-65~+150	

TO-220



- 1. Base
- 2. Collector
- 3. Emitter

ELECTRICAL CHARACTERISTICS

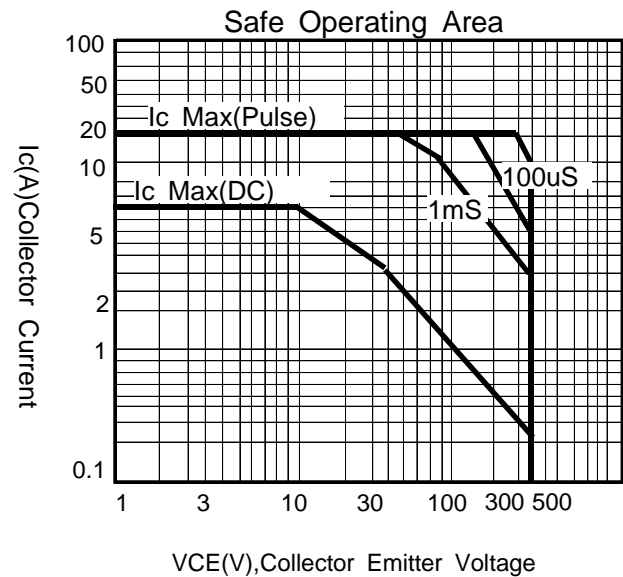
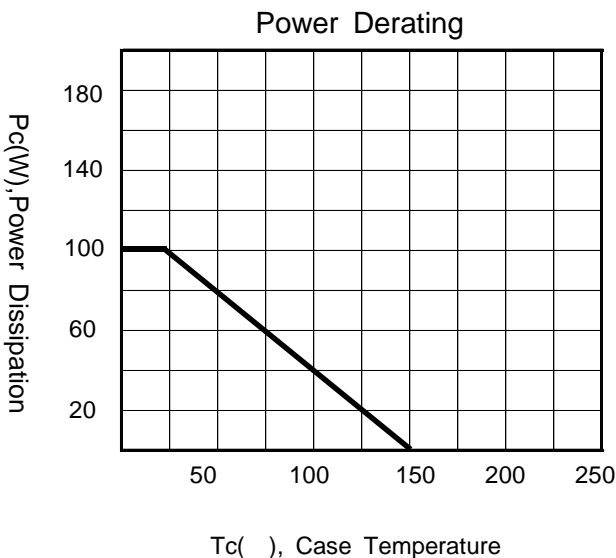
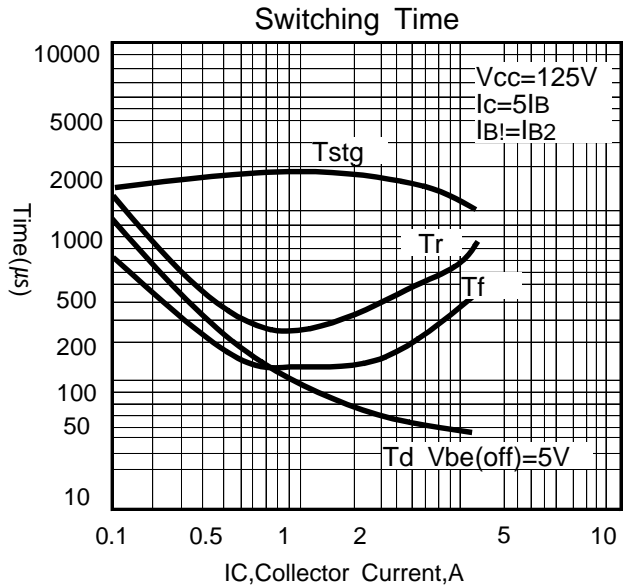
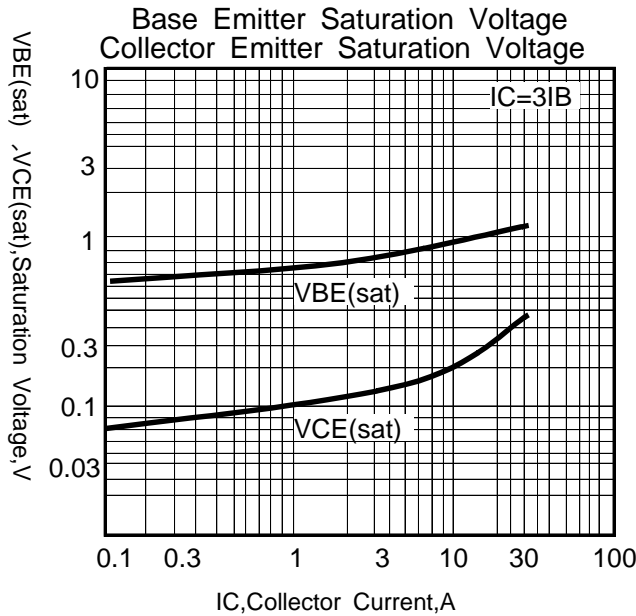
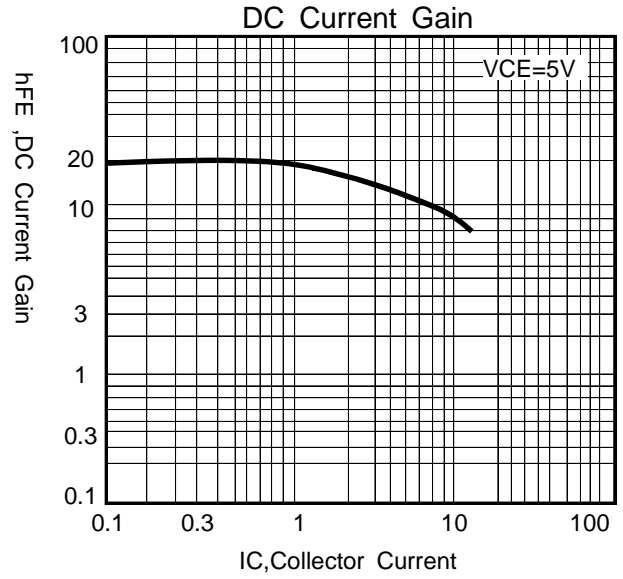
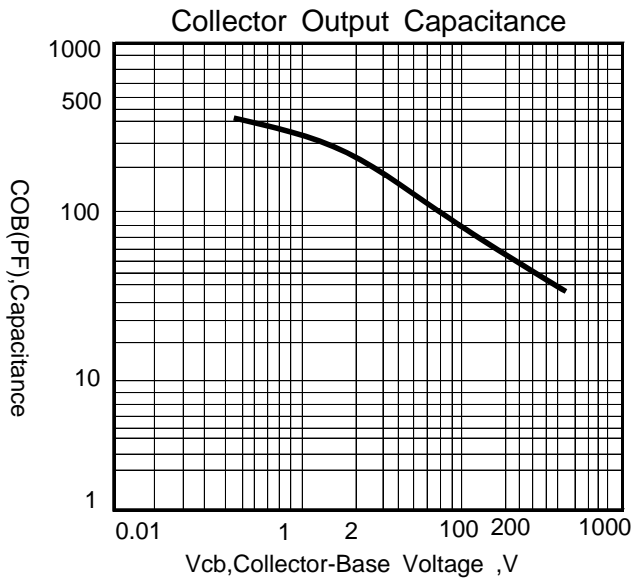
(Ta=25 , unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	TYP	MAX	Unit
*Collector-emitter Sustaining voltage	BVCEO(sus)	IC=10mA ,IB=0	400			V
Emitter cut-off current	IEBO	VEB= 9V ,IC=0			1	mA
*DC current gain	#hFE(1) hFE(1)	VCE=5V , IC=5A VCE=5V , IC=8A	8 5		40 30	
*Collector-emitter saturation voltage	VCE(sat)	IC=5A, IB=1A IC=8A, IB=1.6A IC=12A, IB=3A			1 1.5 3	V
*Base-emitter saturation voltage	VBE(sat)	IC=5A, IB=1A IC=8A, IB=1.6A			1.2 1.6	V
Output Capacitance	COB	VCB=10V,,f=0.1MHZ			2.0	V
Current Gain Bandwidth Product	fT	VCE=10V, IC=0.5A	4.0			MHZ
Turn On Time	tON				1.1	μ S
Storage Time	ts	VCC=125V,IC=8A IB1=-IB2=1.6A			3	μ S
Fall Time	tf				0.7	μ S

* Pulse test:PW 300us,Duty cycle 2%

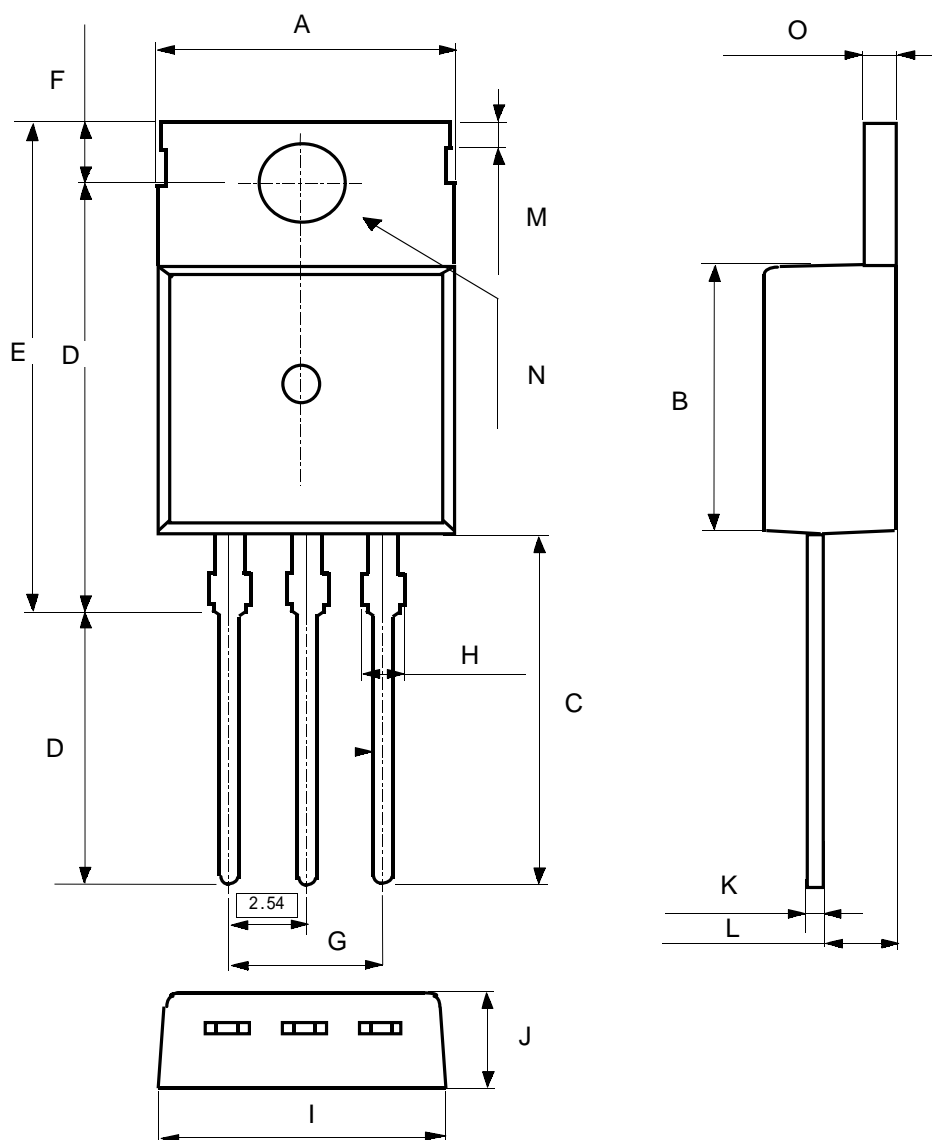
hFE(1) Classification

Classification	H1	H2	H3	H4
hFE	15~20	18~27	25~32	30~35



Package Dimension

[TO-220]



Package Dimension(unit:mm)							
Symbol	Min	Typ	Max	Symbol	Min	Typ	Max
A	-	[9.90]	-	I	9.80	10.00	10.20
B	9.00	9.20	9.40	J	4.30	4.50	4.70
C	12.88	13.08	13.28	K	0.45	0.50	0.60
D	9.78	10.08	10.38	L	2.30	2.40	2.50
E	-	-	18.95	M	1.20	1.30	1.40
F	2.70	2.80	2.90	N	-	[3.60	-
G	4.88	5.08	5.28	O	1.25	1.30	1.40
H	1.42	1.52	1.62	-	-	-	-