

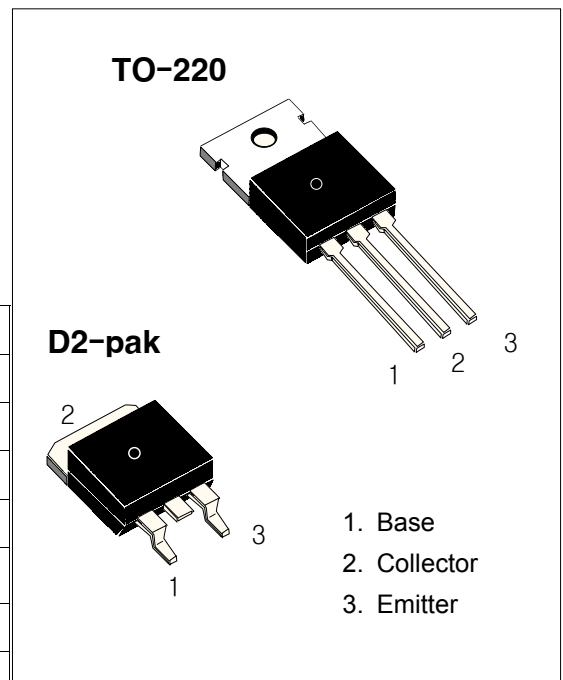
NPN EPITAXIAL SILICON TRANSISTOR

HIGH VOLTAGE SWITCH MODE APPLICATION

- ◇ High Speed Switching
- ◇ Suitable for Switching Regulator and Motor Control

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

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	4	A
Base Current	IB	2	A
Collector Power Dissipation	PC	75	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-65~+150	°C



◇ Ordering Information

Device	Package
MJE13005CT-H1,H2,H3	TO-220
MJE13005DT-H1,H2,H3	TO-263

ELECTRICAL CHARACTERISTICS

(Ta=25°C, 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(2)	VCE=5V ,IC=1A VCE=5V ,IC=2A	10 8		40 40	
*Collector-emitter saturation voltage	VCE(sat)	IC=1A, IB=200mA IC=2A, IB=500mA IC=4A, IB=1A			0.5 0.6 1	V
*Base-emitter saturation voltage	VBE(sat)	IC=1A, IB=200mA IC=2A, IB=500mA			1.2 1.6	V
Base Emitter On Voltage	VBE(ON)	VCE=4V,IC=6A			2.0	V
Current Gain Bandwidth Product	fT	VCE=10V, IC=500mA	4.0			MHZ
Turn On Time	ton	VCC=125V,IC=2A IB1=IB2=0.4A			0.8	μ S
Storage Time	ts				4	μ S
Fall Time	tf				0.9	μ S

\* Pulse Test : Pulse Width=300μS ,Duty Cycle≤ 2%

# hFE Classification

Classification	H1	H2	H3
hFE	19~28	26~35	33~40

