Power Transistor MN611S

Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V_{CBO}	115±10	V
V_{CEO}	115±10	V
V_{EBO}	6	V
I_C	±6 (pulse ±10)	A
I_B	1	A
P_C	50 (Tc=25°C)	W
	1.2 (Ta=25°C, No Fin)	
Tj	150	°C
Tstg	−55 to +150	°C

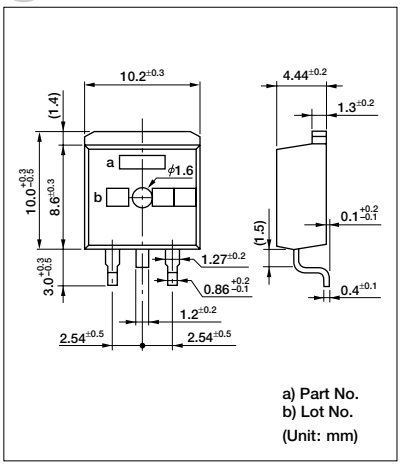
Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings min	Ratings typ	Ratings max	Unit
I_{CBO}	V_{CB}=105V			10	μA
I_{EBO}	V_{EB}=6V			10	μA
V_{CEO}	I_C=50mA	105	115	125	V
h_{FE}	V_{CE}=1V, I_C=1A	400	800	1500	
V_{CE} (sat)	I_C=1.2A, I_B=12mA		0.08	0.12	V
V_{FEC}	I_{FEC}=6A		1.25	1.5	V
$E_{S/B}$	L=10mA	45			mJ

Typical Switching Characteristics

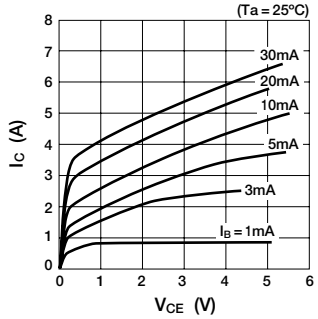
V_{CC} (V)	R_L (Ω)	V_{BB1} (V)	V_{BB2} (V)	I_C (A)	I_{B1} (mA)	I_{B2} (mA)	t_{on} (μs)	t_{stg} (μs)	t_f (μs)
12	12	10	−5	1	30	−30	0.2typ	5.7typ	0.4typ

External Dimensions TO220S

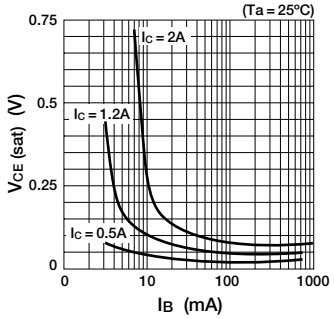


a) Part No.
b) Lot No.
(Unit: mm)

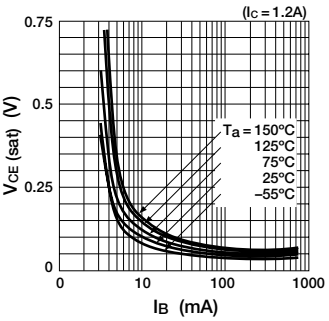
■ I_C — V_{CE} Characteristics (typ.)



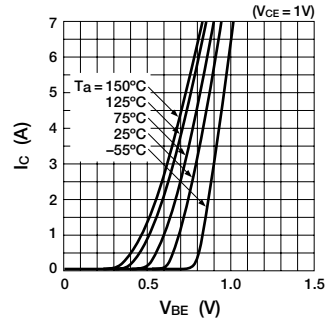
■ V_{CE} (sat) — I_B Characteristics (typ.)



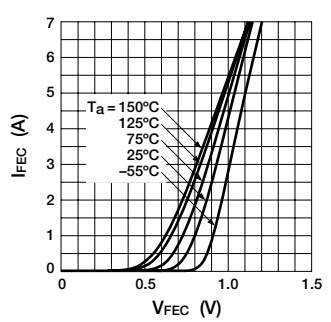
■ V_{CE} (sat) — I_B Temperature Characteristics (typ.)



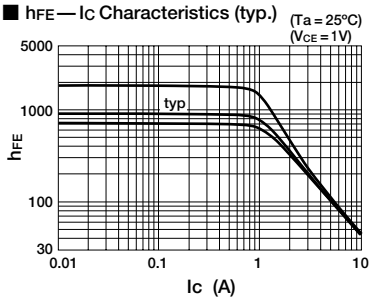
■ I_C — V_{BE} Temperature Characteristics (typ.)



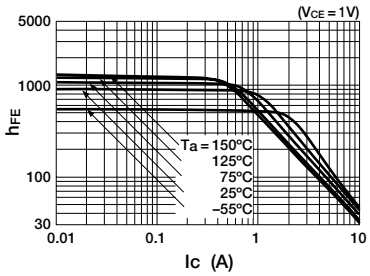
■ I_{FEC} — V_{FEC} Temperature Characteristics (typ.)



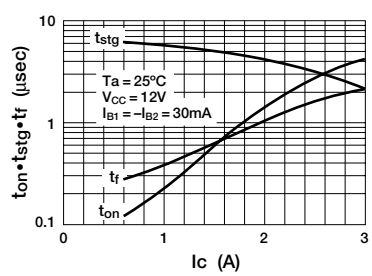
■ h_{FE} — I_C Characteristics (typ.)



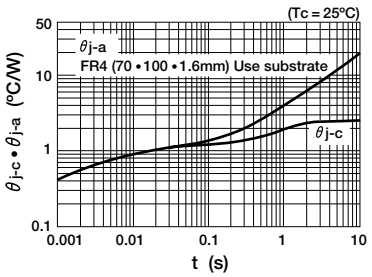
■ h_{FE} — I_C Temperature Characteristics (typ.)



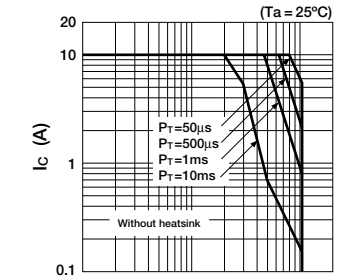
■ t_{on}•t_{stg}•t_f — I_C Characteristics (typ.)



■ $\theta_{j\text{-}c}$ • $\theta_{j\text{-}a}$ — t Characteristics (Single pulse)



■ Safe Operating Area (Single pulse)



■ P_T — Ta Derating

