

Power Transistor 2SD2382

Absolute Maximum Ratings (Ta=25°C)

Symbol	Rating	Unit
V _{CB0}	65±5	V
V _{CE0}	65±5	V
V _{EB0}	6	V
I _C	±6 (pulse ±10)	A
I _B	1	A
P _C	30 (T _C =25°C)	W
T _J	150	°C
T _{stg}	-55 to +150	°C

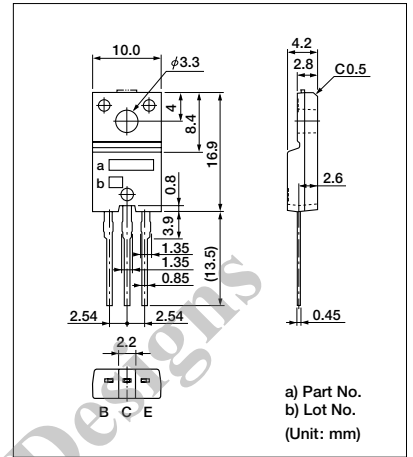
Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Rating	Unit
I _{CB0}	V _{CB} = 60V	10max	μA
I _{EB0}	V _{EB} = 6V	10max	μA
V _{CE0}	I _C = 50mA	60 to 70	V
h _{FE}	V _{CE} = 1V, I _C = 1A	700 to 3000	
V _{CE(sat)}	I _C = 1.5A, I _B = 15mA	0.15max	V
V _{FEC}	I _{FEC} = 6A	1.5max	V
Es/b	L = 10mH, single pulse	200min	mJ

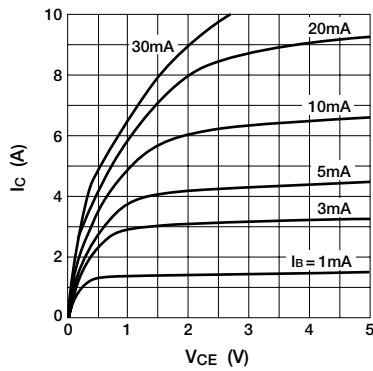
Typical Switching Characteristics

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (mA)	I _{B2} (mA)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
12	12	1	10	-5	30	-30	0.25	0.8	0.35

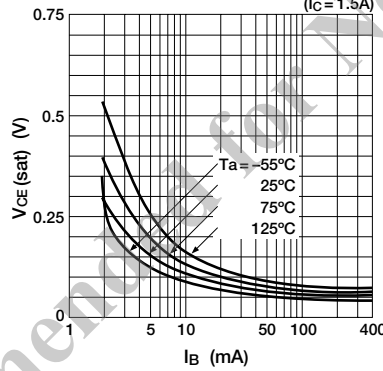
External Dimensions TO220F (full-mold)



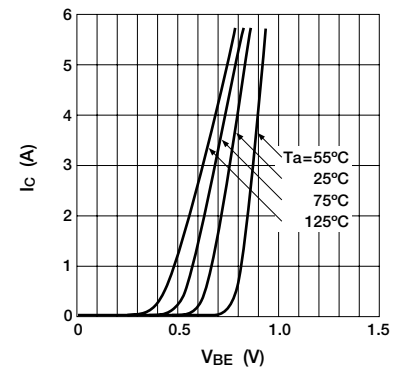
■ I_C—V_{CE} Characteristics (typ.)



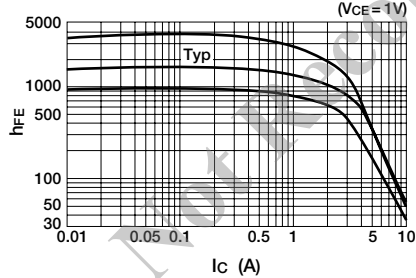
■ V_{CE(sat)}—I_B Temperature Characteristics (typ.)



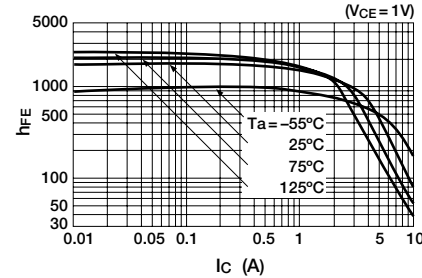
■ I_C—V_{BE} Temperature Characteristics (typ.)



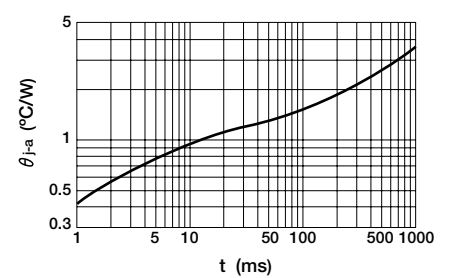
■ h_{FE}—I_C Characteristics (typ.)



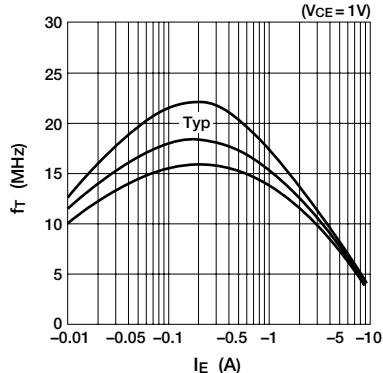
■ h_{FE}—I_C Temperature Characteristics (typ.)



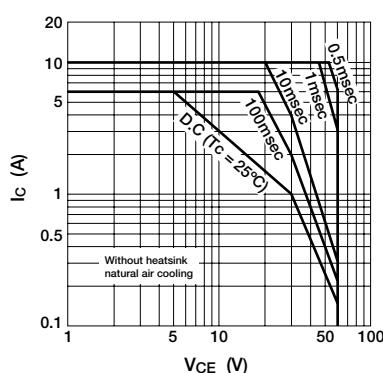
■ θ_{J-a}—t Characteristics



■ f_T—I_E Characteristics (typ.)



■ Safe Operating Area (single pulse)



■ P_C—T_a Derating

