Power Transistor 2SD2382

Absolute Maximum Ratings (Ta=25ºC)

Symbol	Ratings	Unit
V_{CBO}	65±5	V
V_{CEO}	65±5	V
V_{EBO}	6	V
I_C	±6 (pulse ±10)	A
I_B	1	A
P_C	30 (Tc=25ºC)	W
Tj	150	ºC
Tstg	–55 to +150	ºC

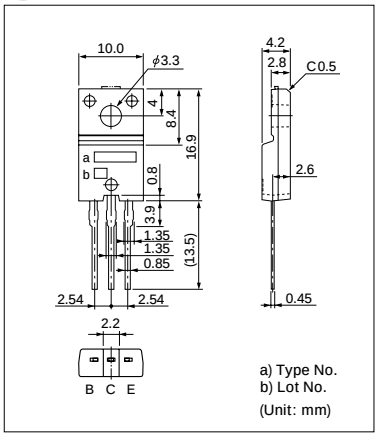
Electrical Characteristics (Ta=25ºC)

Symbol	Test Conditions	Ratings	Unit
I_{CBO}	V_{CB} = 60V	10max	µA
I_{EBO}	V_{EB} = 6V	10max	µA
V_{CEO}	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

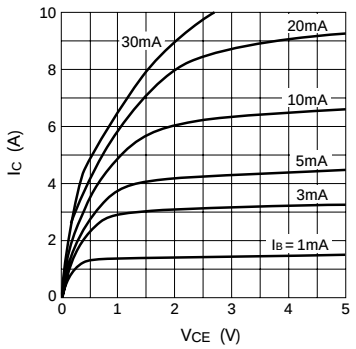
Typical Switching Characteristics

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

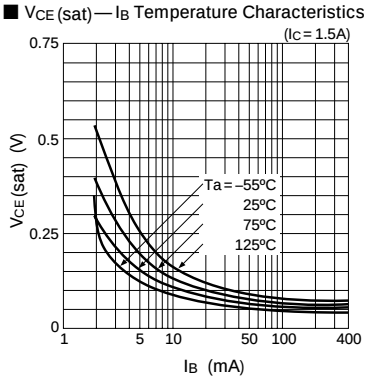
External Dimensions FM20 (full-mold)



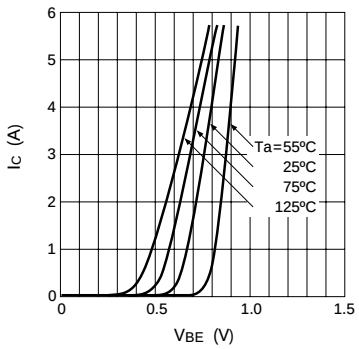
■ I_C — V_{CE} Characteristics (typ.)



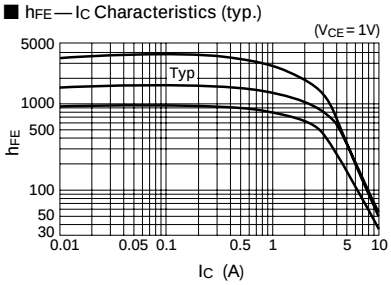
■ V_{CE}(sat) — I_B Temperature Characteristics (typ.)



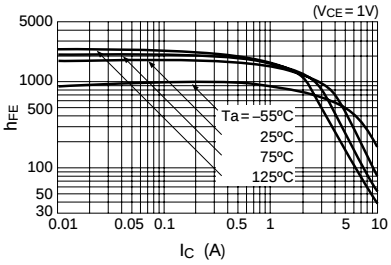
■ I_C — V_{BE} Temperature Characteristics (typ.)



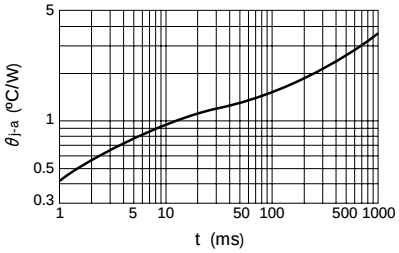
■ h_{FE} — I_C Characteristics (typ.)



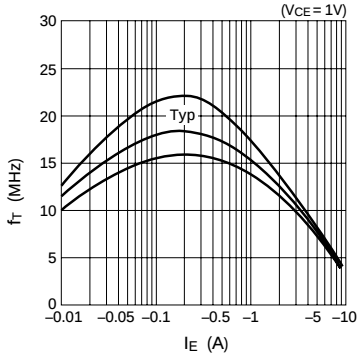
■ h_{FE} — I_C Temperature Characteristics (typ.)



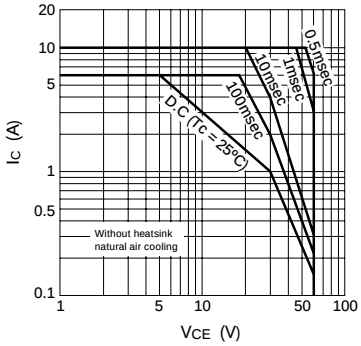
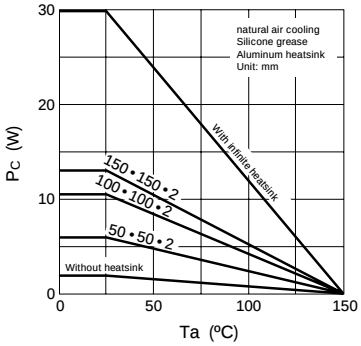
■ $\theta_{j\text{-}a}$ — t Characteristics



■ f_T — I_E Characteristics (typ.)



■ Safe Operating Area (single pulse)



■ P_C — Ta Derating