

Absolute Maximum Ratings (Ta = 25°C)

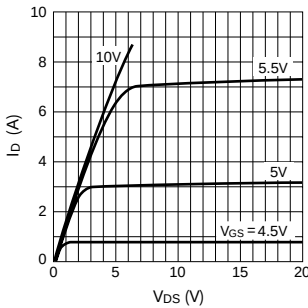
Symbol	Ratings	Unit
V _{DSS}	500	V
V _{GSS}	±20	V
I _D	±8.5	A
I _D (pulse)	±34 (T _{ch} ≤ 150°C)	A
P _D	85 (T _c = 25°C)	W
E _{AS} *	400	mJ
T _{ch}	150	°C
T _{stg}	-55 to +150	°C

*: V_{DD} = 50V, L = 10mH, I_L = 8.5A, unclamped,
See Figure 1 on Page 5.

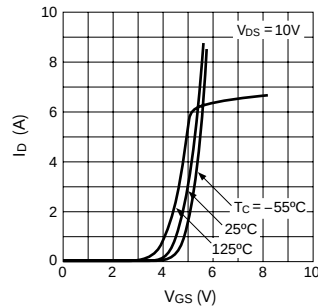
Electrical Characteristics (Ta = 25°C)

Symbol	Ratings			Unit	Conditions
	min	typ	max		
V _{(BR) DSS}	500			V	I _D = 250μA, V _{GS} = 0V
I _{GSS}			±500	nA	V _{GS} = ±20V
I _{DSS}			250	μA	V _{DS} = 500V, V _{GS} = 0V
V _{TH}	2.0		4.0	V	V _{DS} = 10V, I _D = 250μA
Re (yfs)	5.1	7.7		S	V _{DS} = 10V, I _D = 4.5A
R _{DS(on)}		0.70	0.85	Ω	V _{GS} = 10V, I _D = 4.5A
C _{iss}		1300		pF	V _{DS} = 25V, f = 1.0MHz, V _{GS} = 0V
C _{oss}		180		pF	
t _{on}		60		ns	I _D = 4.5A, V _{DD} = 250V, V _{GS} = 10V, See Figure 2 on Page 5.
t _{off}		110		ns	

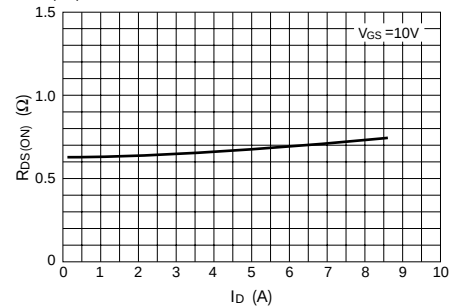
I_D - V_{DS} Characteristics (typical)



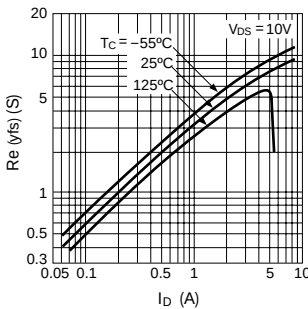
I_D - V_{GS} Characteristics (typical)



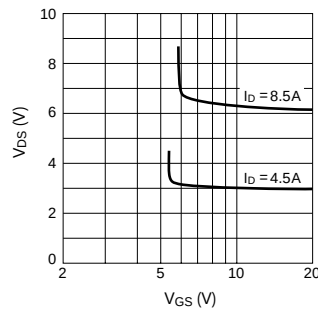
R_{DS(ON)} - I_D Characteristics (typical)



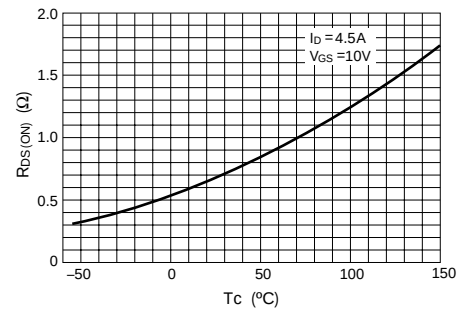
Re (yfs) - I_D Characteristics (typical)



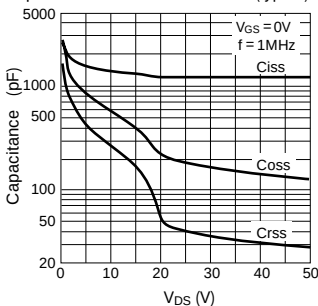
V_{DS} - V_{GS} Characteristics (typical)



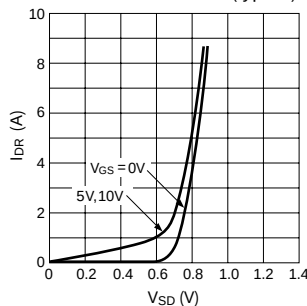
R_{DS(ON)} - T_C Characteristics (typical)



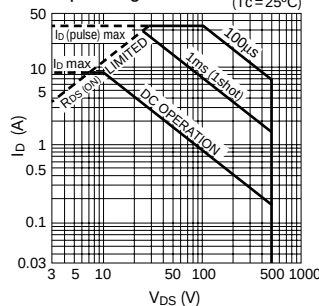
Capacitance - V_{DS} Characteristics (typical)



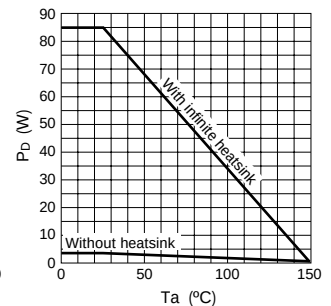
I_{DR} - V_{SD} Characteristics (typical)



Safe Operating Area



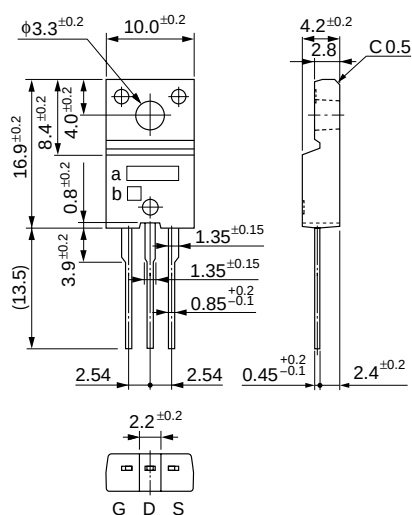
P_D - T_a Characteristics



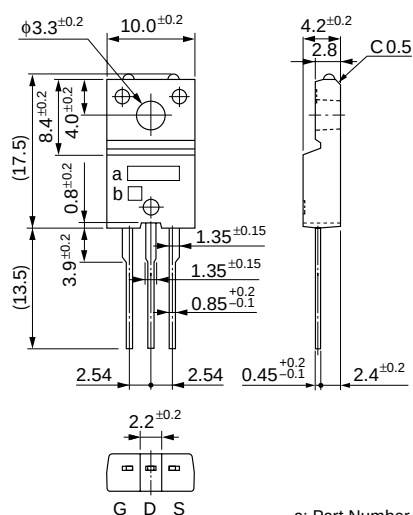
External dimensions (Unit: mm)

① FM20 (TO-220F)

General product



UL approved product

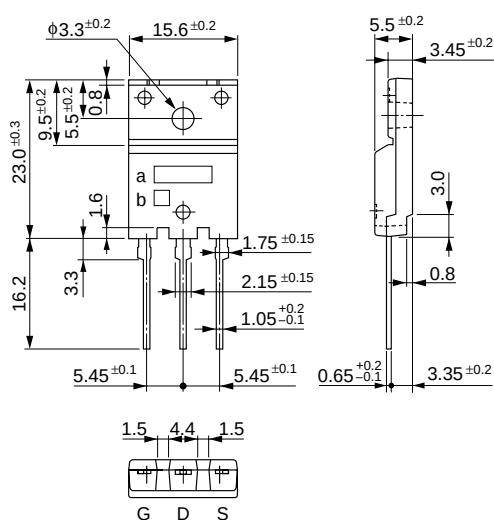


a: Part Number
b: Lot Number

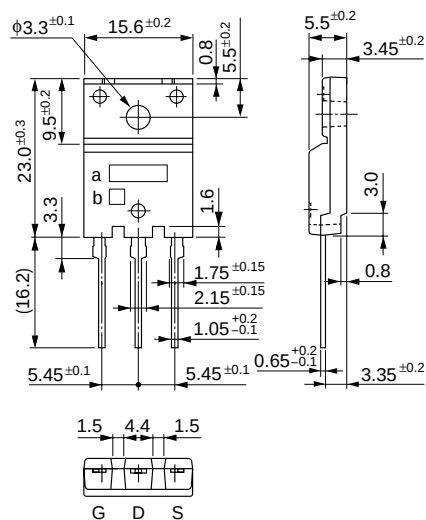
Weight: Approx 2.0g

② FM100 (TO-3PF)

General product



UL approved product



a: Part Number
b: Lot Number

Weight: Approx 6.5g