

Absolute Maximum Ratings (Ta = 25°C)

Symbol	Ratings	Unit
V _{DSS}	450	V
V _{GSS}	±30	V
I _D	±10	A
I _D (pulse) *1	±40	A
P _D	35 (T _c = 25°C)	W
E _{AS} *2	300	mJ
I _{AS}	10	A
T _{ch}	150	°C
T _{stg}	-55 to +150	°C

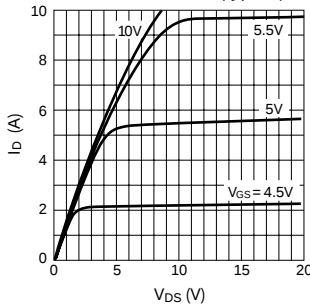
*1: P_w ≤ 100μs, duty cycle ≤ 1%

*2: V_{DD} = 30V, L = 6mH, I_L = 10A, unclamped, R_G = 50Ω, See Figure 1 on Page 5.

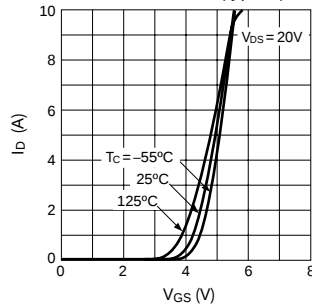
Electrical Characteristics (Ta = 25°C)

Symbol	Ratings			Unit	Conditions
	min	typ	max		
V _{(BR) DSS}	450			V	I _D = 100μA, V _{GS} = 0V
I _{GSS}			±100	nA	V _{GS} = ±30V
I _{DSS}			100	μA	V _{DS} = 450V, V _{GS} = 0V
V _{TH}	2.0	3.0	4.0	V	V _{DS} = 10V, I _D = 1mA
Re (yfs)	5	7		S	V _{DS} = 20V, I _D = 5A
R _{DS} (on)		0.66	0.80	Ω	V _{GS} = 10V, I _D = 5A
C _{iss}		1000		pF	V _{DS} = 10V, f = 1.0MHz, V _{GS} = 0V
C _{oss}		200		pF	
C _{rss}		95		pF	
t _d (on)		25		ns	I _D = 5A, V _{DD} = 200V, R _L = 40Ω, V _{GS} = 10V, See Figure 2 on Page 5.
t _r		30		ns	
t _d (off)		85		ns	
t _f		45		ns	
V _{SD}		1.0	1.5	V	I _{SD} = 10A, V _{GS} = 0V

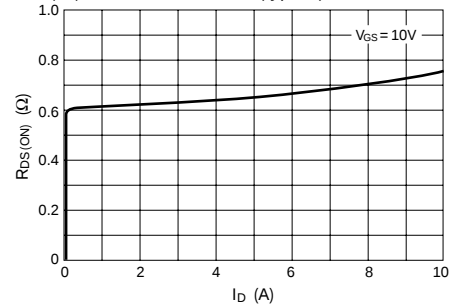
I_D – V_{DS} Characteristics (typical)



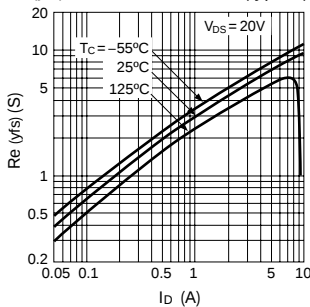
I_D – V_{GS} Characteristics (typical)



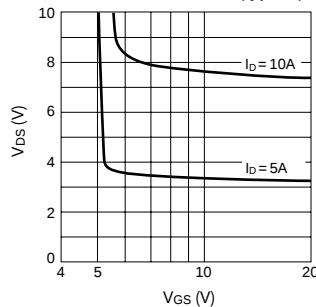
R_{DS(ON)} – I_D Characteristics (typical)



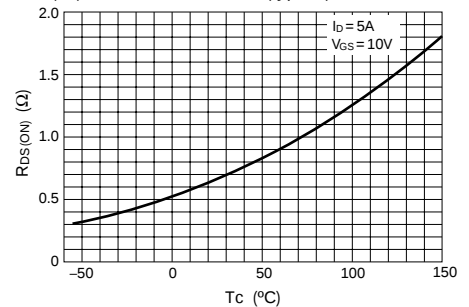
Re (yfs) – I_D Characteristics (typical)



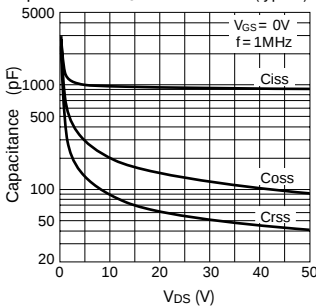
V_{DS} – V_{GS} Characteristics (typical)



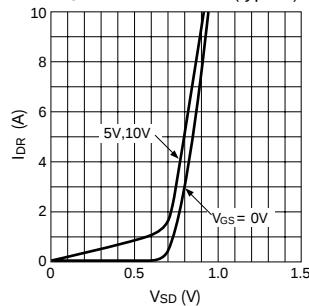
R_{DS(ON)} – T_c Characteristics (typical)



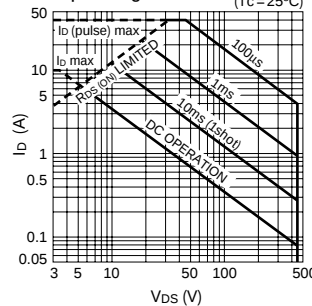
Capacitance – V_{DS} Characteristics (typical)



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



Safe Operating Area



P_D – T_a Characteristics

