

FKV550T

External dimensions 1 FM20

Absolute Maximum Ratings (Ta = 25°C)

Symbol	Ratings	Unit
V _{DSS}	50	V
V _{GSS}	±20	V
I _D	±50	A
I _D (pulse) *1	±150	A
P _D	35 (Tc = 25°C)	W
E _{AS} *2	150	mJ
I _{AS}	50	A
T _{ch}	150	°C
T _{stg}	-55 to +150	°C

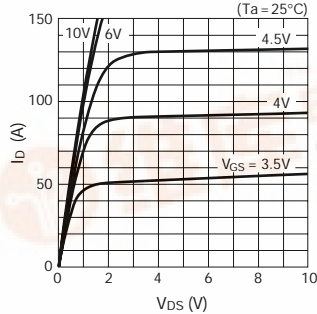
*1: P_W ≤ 100μs, duty cycle ≤ 1%

*2: V_{DD} = 20V, L = 72μH, I_{AS} = 50A, unclamped, R_G = 50Ω, See Figure 1 on Page 5.

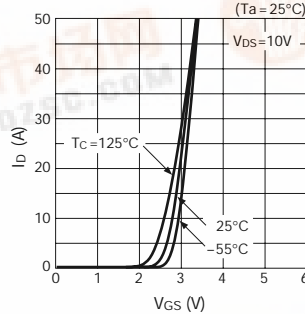
Electrical Characteristics (Ta = 25°C)

Symbol	Ratings			Unit	Conditions
	min	typ	max		
V _{(BR)DSS}	50			V	I _D = 100μA, V _{GS} = 0V
I _{GSS}			±10	μA	V _{GS} = ±20V
I _{DSS}			100	μA	V _{DS} = 50V, V _{GS} = 0V
V _{TH}	1.0		2.5	V	V _{DS} = 10V, I _D = 250μA
Re (yfs)	20			S	V _{DS} = 10V, I _D = 25A
R _{DS(on)}		10	13	mΩ	V _{GS} = 10V, I _D = 25A
C _{iss}		2700		pF	V _{DS} = 10V, f = 1.0MHz, V _{GS} = 0V
C _{oss}		1100		pF	
C _{rss}		500		pF	
t _{d(on)}		20		ns	I _D = 25A, V _{DD} ≐ 12V, R _L = 0.48Ω, V _{GS} = 10V See Figure 2 on Page 5.
t _r		600		ns	
t _{d(off)}		300		ns	
t _f		100		ns	
V _{SD}		1.0	1.5	V	I _{SD} = 50A, V _{GS} = 0V

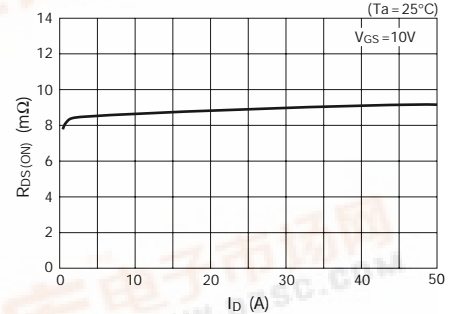
I_D - V_{DS} Characteristics (typical)



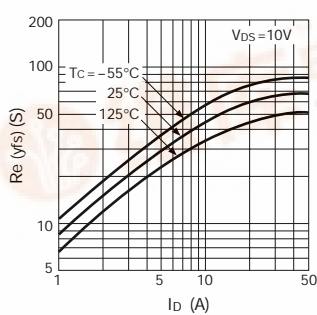
I_D - V_{GS} Characteristics (typical)



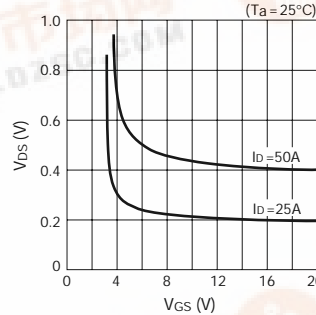
R_{DS(on)} - I_D Characteristics (typical)



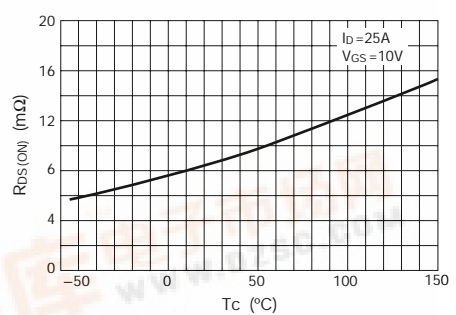
Re (yfs) - I_D Characteristics (typical)



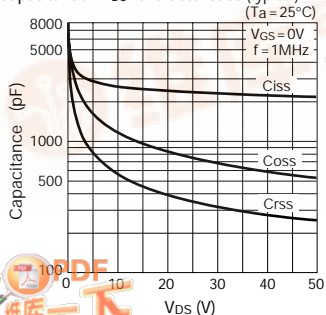
V_{DS} - V_{GS} Characteristics (typical)



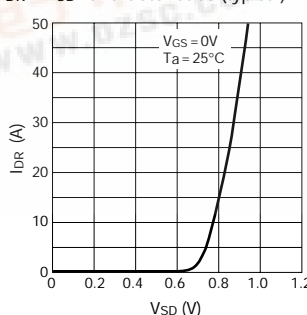
R_{DS(on)} - T_C Characteristics (typical)



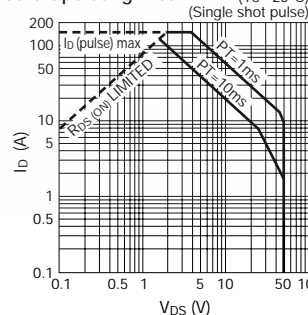
Capacitance - V_{DS} Characteristics (typical)



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



Safe Operating Area



P_D - T_a Characteristics

