

# MOS FET FKV560

## Absolute Maximum Ratings (Ta=25°C)

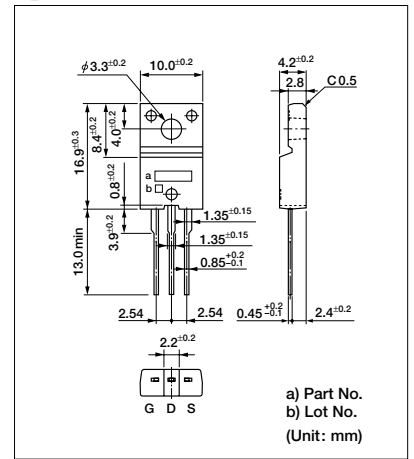
Symbol	Ratings	Unit
V <sub>DSS</sub>	50	V
V <sub>GSS</sub>	+20, -10	V
I <sub>D</sub>	±60	A
I <sub>D</sub> (pulse)*	±180	A
P <sub>D</sub>	35 (T <sub>c</sub> =25°C)	W
T <sub>ch</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

\* P<sub>w</sub> ≤ 100μs, duty ≤ 1%

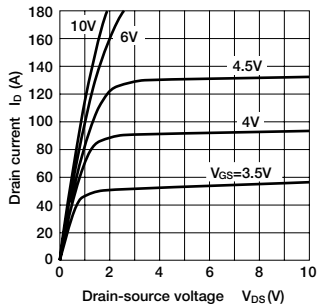
## Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings			Unit
		min	typ	max	
V <sub>(BR) DSS</sub>	I <sub>D</sub> = 100μA, V <sub>GS</sub> = 0V	50			V
I <sub>GSS</sub>	V <sub>GS</sub> = +20V			+10	μA
	V <sub>GS</sub> = -10V			-5	μA
I <sub>DSS</sub>	V <sub>DS</sub> = 50V, V <sub>GS</sub> = 0V			100	μA
V <sub>TH</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 250μA	1.0		2.5	V
Re (yfs)	V <sub>DS</sub> = 10V, I <sub>D</sub> = 25A	20			S
R <sub>DS (ON)</sub>	V <sub>GS</sub> = 10V, I <sub>D</sub> = 25A		9	11	mΩ
C <sub>iss</sub>	V <sub>DS</sub> = 10V		2700		pF
C <sub>oss</sub>	f = 1.0MHz		1100		pF
C <sub>rss</sub>	V <sub>GS</sub> = 0V		500		pF
t <sub>d (on)</sub>	I <sub>D</sub> = 25A		20		ns
t <sub>r</sub>	V <sub>DD</sub> = 12V		600		ns
t <sub>d (off)</sub>	R <sub>L</sub> = 0.48Ω		300		ns
t <sub>f</sub>	V <sub>GS</sub> = 10V		100		ns
V <sub>SD</sub>	I <sub>SD</sub> = 50A, V <sub>GS</sub> = 0V	1.0		1.5	V
D <sub>i</sub> , t <sub>rr</sub>	I <sub>F</sub> = 25A, di/dt = 100A/μs		110		ns

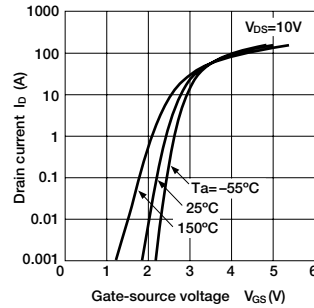
## External Dimensions TO220F (full-mold)



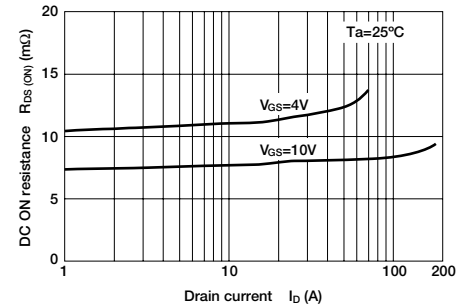
### I<sub>D</sub>—V<sub>DS</sub> Characteristics



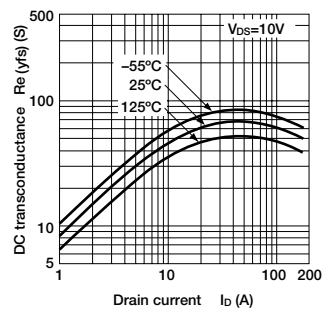
### I<sub>D</sub>—V<sub>GS</sub> Characteristics



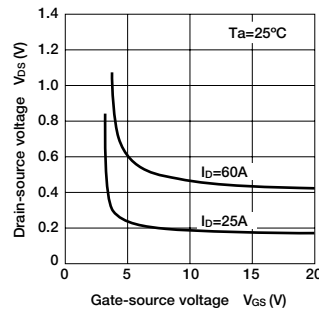
### R<sub>DS (ON)</sub>—I<sub>D</sub> Characteristics



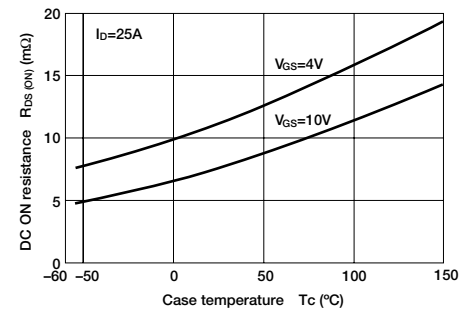
### Re (yfs)—I<sub>D</sub> Characteristics



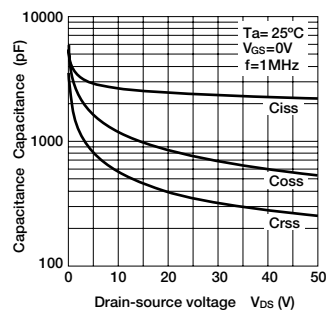
### V<sub>DS</sub>—V<sub>GS</sub> Characteristics



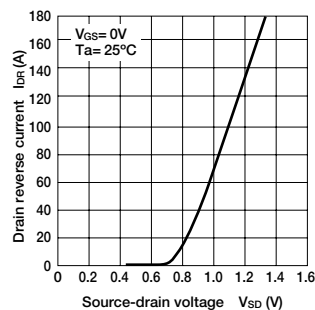
### R<sub>DS (ON)</sub>—T<sub>c</sub> Characteristics



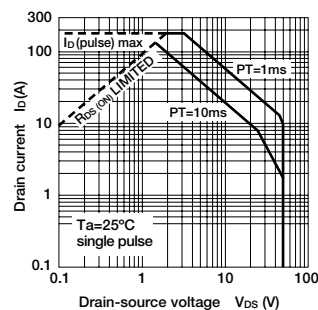
### Capacitance—V<sub>DS</sub> Characteristics



### I<sub>DR</sub>—V<sub>SD</sub> Characteristics



### Safe Operating Area



### P<sub>D</sub>—T<sub>a</sub> Derating

