MOS FET　2SK3800

絶対最大定格　(Ta=25℃)

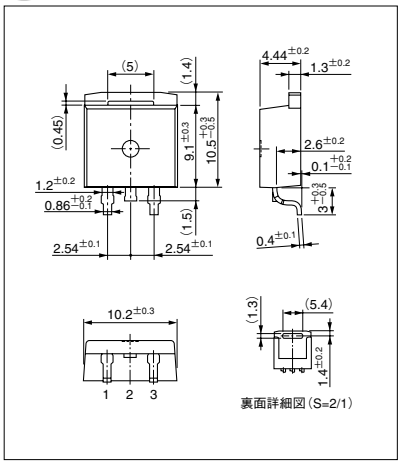
記　号	規　格　値	単位
V_{DSS}	40	V
V_{GSS}	±20	V
I_D	±70	A
$I_{D(pulse)}$※1	±140	A
P_D	80 (Tc=25℃)	W
EAS※2	400	mJ
Tch	150	℃
Tstg	−40～+150	℃

※1: P_W≦100μs, duty cycle≦1%
※2: V_{DD}=20V, L=1mH, I_L=20A, unclamped, R_G=50Ω

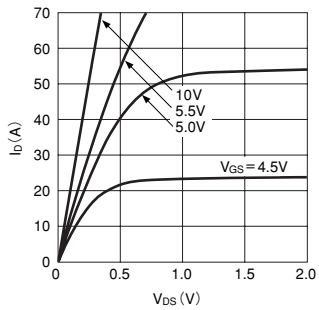
電気的特性　(Ta=25℃)

記　号	試　験　条　件	規　格　値 min	typ	max	単位
$V_{(BR)DSS}$	I_D=100μA, V_{GS}=0V	40			V
I_{GSS}	V_{GS}=±15V			±10	μA
I_{DSS}	V_{DS}=40V, V_{GS}=0V			100	μA
V_{TH}	V_{DS}=10V, I_D=1mA	2.0	3.0	4.0	V
$R_{e(yfs)}$	V_{DS}=10V, I_D=35A	30	50		S
$R_{DS(ON)}$	V_{GS}=10V, I_D=35A		5.0	6.0	mΩ
Ciss	V_{DS}=10V, f=1.0MHz, V_{GS}=0V		5100		pF
Coss			1200		pF
Crss			860		pF
$t_{d(on)}$	I_D=35A, V_{DD}=20V, R_G=22Ω, R_L=0.57Ω, V_{GS}=10V		100		ns
t_r			100		ns
$t_{d(off)}$			300		ns
t_f			130		ns
V_{SD}	I_{SD}=50A, V_{GS}=0V		0.9	1.2	V
t_{rr}	I_{SD}=25A, di/dt=50A/μs		110		ns
$R_{th(ch-c)}$				1.56	℃/W
$R_{th(ch-a)}$				62.5	℃/W

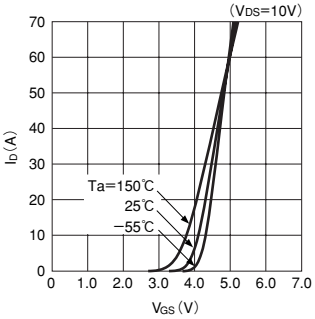
外形図　TO220S



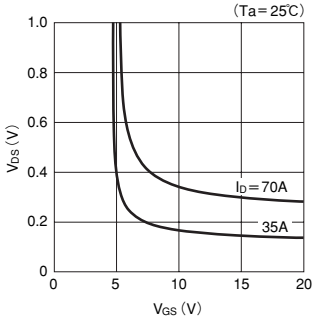
■I_D—V_{DS} 特性 (代表例)



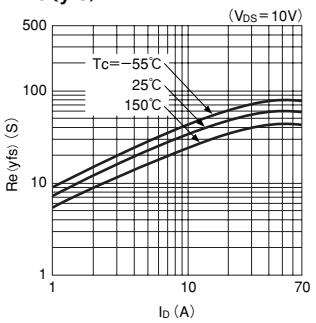
■I_D—V_{GS} 特性 (代表例)



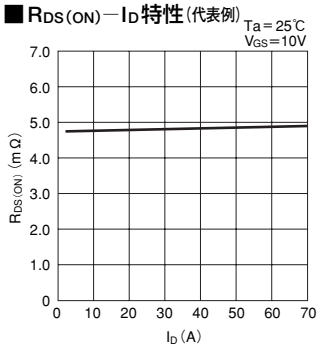
■V_{DS} —V_{GS}特性 (代表例)



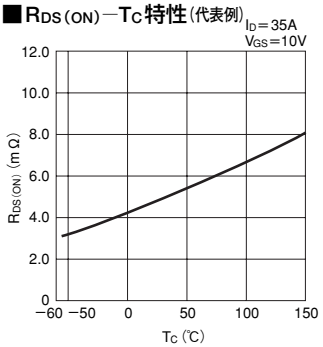
■$R_{e(yfs)}$—I_D 特性 (代表例)



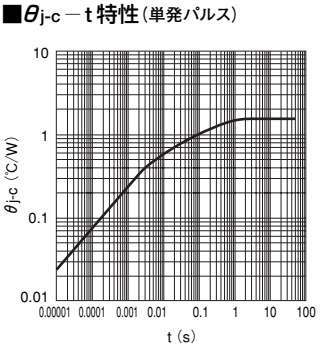
■$R_{DS(ON)}$—I_D特性 (代表例)



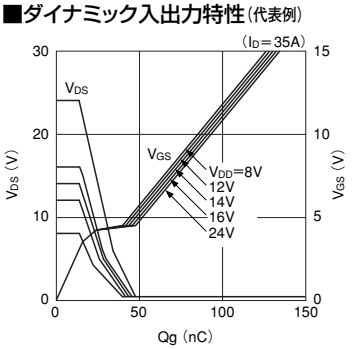
■$R_{DS(ON)}$—T_C特性 (代表例)



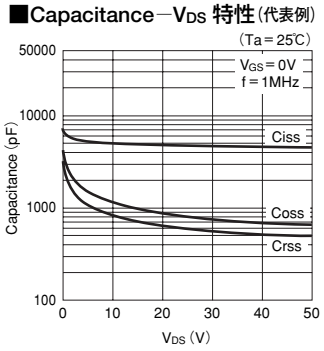
■θ_{j-c} —t 特性 (単発パルス)



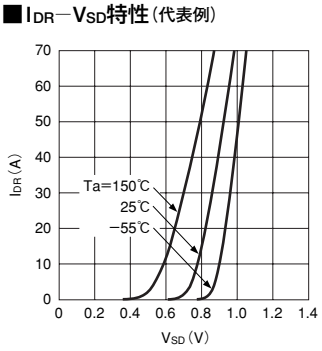
■ダイナミック入出力特性 (代表例)



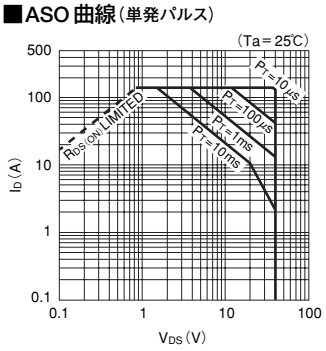
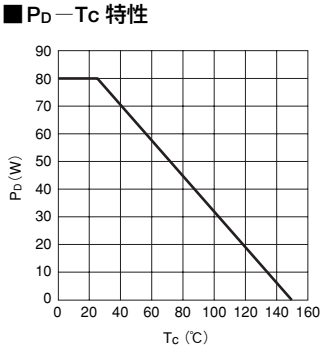
■Capacitance—V_{DS} 特性 (代表例)



■I_{DR}—V_{SD}特性 (代表例)



■ASO 曲線 (単発パルス)



■P_D—Tc 特性