

Absolute maximum ratings

(Ta=25°C)

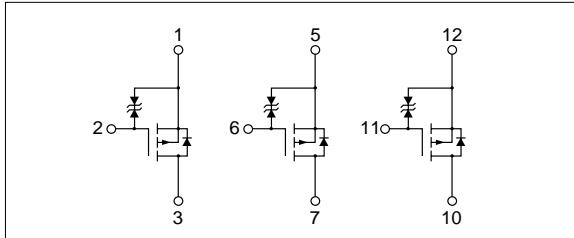
Symbol	Ratings	Unit
V _{DSS}	-60	V
V _{GSS}	±20	V
I _D	-10	A
I _{D(pulse)}	-15 (PW≤1ms, duty≤25%)	A
P _T	4.5 (Ta=25°C, with all circuits operating, without heatsink) 30 (Tc=25°C, with all circuits operating, with infinite heatsink)	W
θ _{j-a}	27.8 (Junction-Air, Ta=25°C, with all circuits operating)	°C/W
θ _{j-c}	4.17 (Junction-Case, Tc=25°C, with all circuits operating)	°C/W
V _{ISO}	1000 (Between fin and lead pin, AC)	Vrms
T _{ch}	150	°C
T _{stg}	-40 to +150	°C

Electrical characteristics

(Ta=25°C)

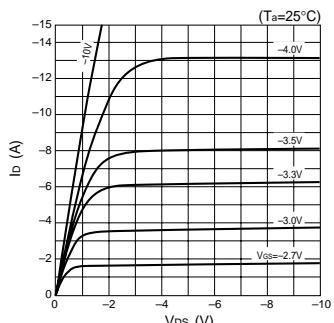
Symbol	Specification			Unit	Conditions
	min	typ	max		
V _{(BR)DSS}	-60			V	I _D =-100μA, V _{GS} =0V
I _{GSS}			±10	nA	V _{GS} =±20V
I _{DSS}			-100	μA	V _{DS} =-60V, V _{GS} =0V
V _{TH}	-1.0		-2.0	V	V _{DS} =-10V, I _D =-250μA
R _{E(yfs)}		8.7		S	V _{DS} =-10V, I _D =-5A
R _{D(on)}		0.14		Ω	V _{GS} =-10V, I _D =-5A
C _{iss}	1200			pF	V _{DS} =-10V, f=1.0MHz, V _{GS} =0V
C _{oss}	440			pF	
C _{rss}	120			pF	
t _{d(on)}	50			ns	I _D =-5A, V _{DD} =-20V, R _L =4Ω, V _{GS} =-5V, R _G =50Ω, see Fig. 4 on page 16.
t _r	170			ns	
t _{d(off)}	180			ns	
t _f	100			ns	
V _{SD}		-1.25		V	I _D =-10A, V _{GS} =0V
t _{rr}		100		ns	I _D =-5A, di/dt=100A/μs

■ Equivalent circuit diagram

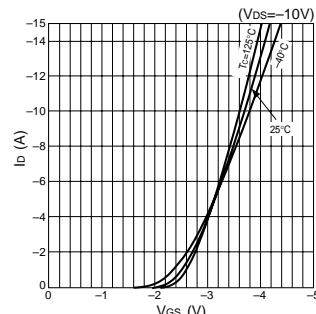


Characteristic curves

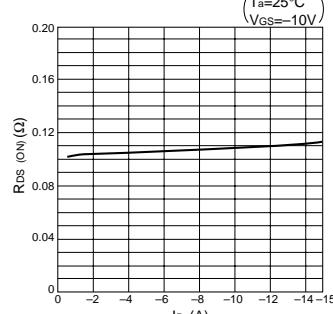
I_D-V_{DS} Characteristics (Typical)



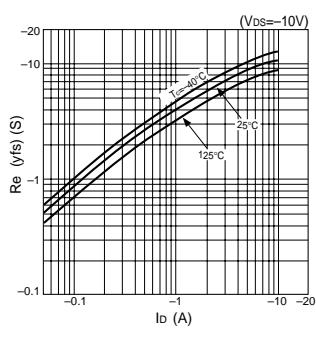
I_D-V_{GS} Characteristics (Typical)



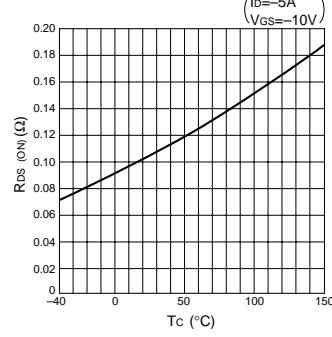
R_{D(on)}-I_D Characteristics (Typical)



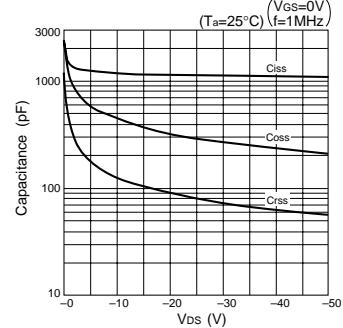
R_{E(yfs)}-I_D Characteristics (Typical)



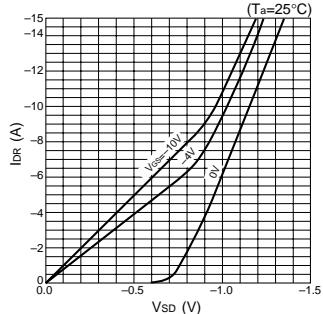
R_{D(on)}-T_c Characteristics (Typical)



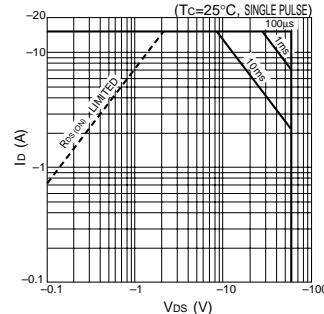
Capacitance-V_{DS} Characteristics (Typical)



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



Safe Operating Area (SOA)



P_T-T_a Characteristics

