

Absolute maximum ratings

(Ta=25°C)

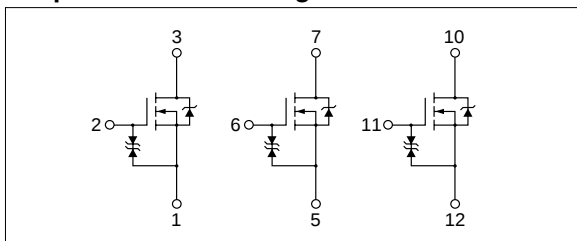
Symbol	Ratings	Unit
V _{DSS}	60	V
V _{GSS}	±20	V
I _D	10	A
I _D (pulse)	15 (PW≤1ms, Du≤25%)	A
P _T	4.5 (Ta=25°C, with all circuits operating, without heatsink) 30 (Tc=25°C, with all circuits operating, with infinite heatsink)	W
θ _{J-a}	27.8 (Junction-Air, Ta=25°C, with all circuits operating)	°C/W
θ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

Electrical characteristics

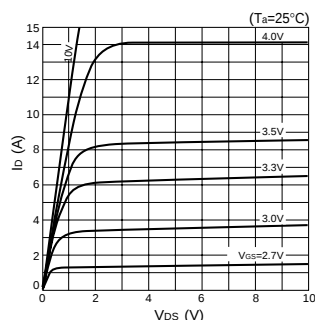
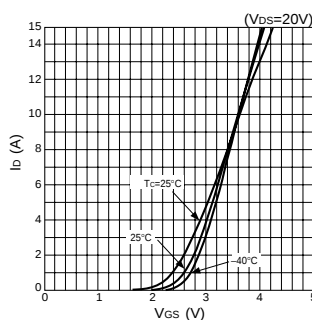
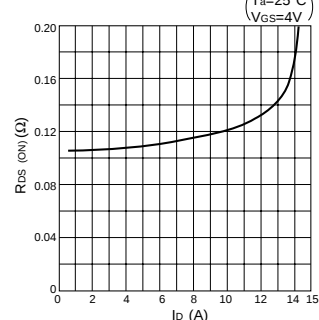
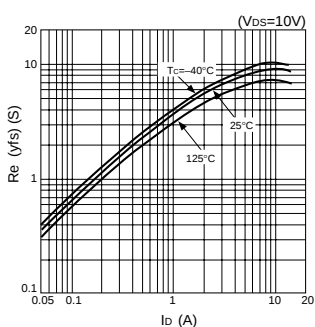
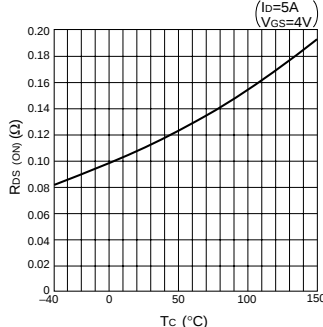
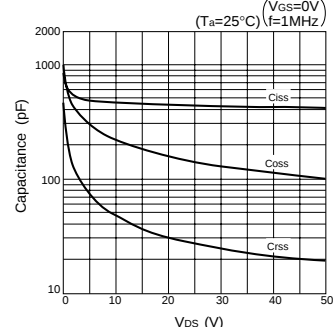
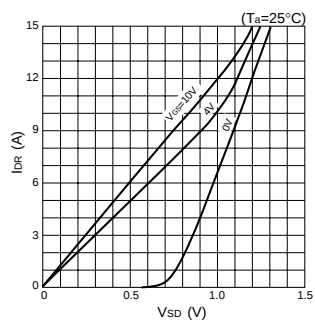
(Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
V(BR)DSS	60			V	I _D =100μA, V _{GS} =0V
I _{GSS}			±10	μA	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
Re(yfs)		8.0		S	V _{DS} =10V, I _D =5A
R _{DS(ON)}			0.14	Ω	V _{GS} =4V, I _D =5A
Ciss		460		pF	V _{DS} =10V, f=1.0MHz, V _{GS} =0V
Coss		225		pF	
Crss		50		pF	
td(on)		25		ns	
tr		110		ns	I _D =5A, V _{DD} =20V, R _L =4Ω, V _{GS} =5V, see Fig. 4 on page 16.
td(off)		90		ns	
tf		55		ns	
V _{SD}		1.15		V	I _{SD} =10A, V _{GS} =0V
trr		75		ns	I _{SD} =5A, di/dt=100A/μs

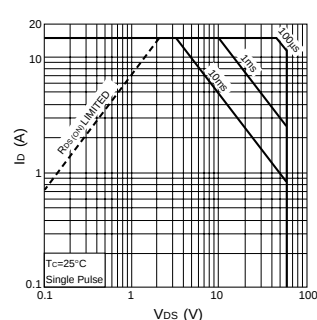
Equivalent circuit diagram



Characteristic curves

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)R_{DS(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