

Absolute maximum ratings

(Ta=25°C)

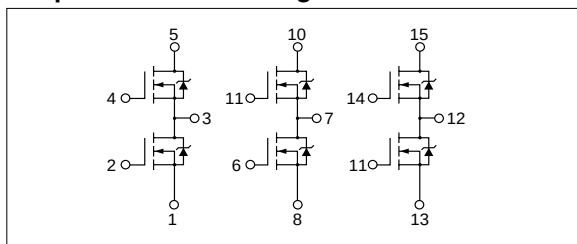
Symbol	Ratings	Unit
V_{DSS}	60	V
V_{GSS}	±20	V
I_D	5	A
$I_D(\text{pulse})$	8 (PW≤1ms, Du≤25%)	A
P_T	5 (Ta=25°C, with all circuits operating, without heatsink)	W
	30 (Tc=25°C, with all circuits operating, with infinite heatsink)	
θ_{JA}	25 (Junction-Air, Ta=25°C, with all circuits operating)	°C/W
θ_{JC}	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

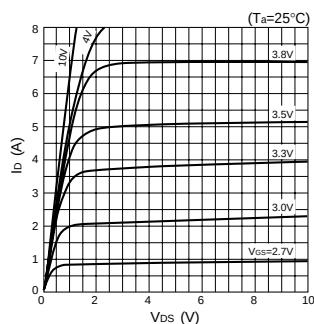
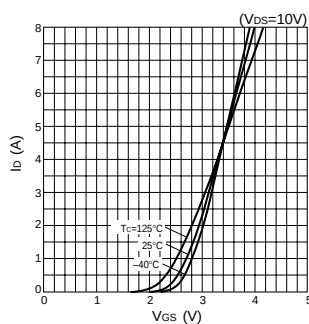
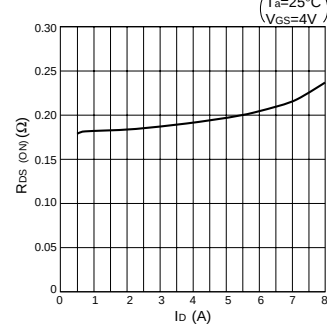
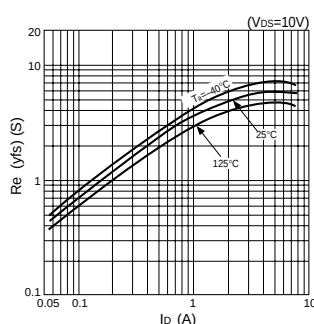
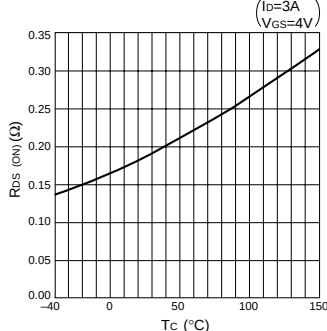
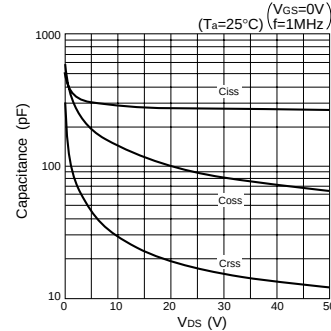
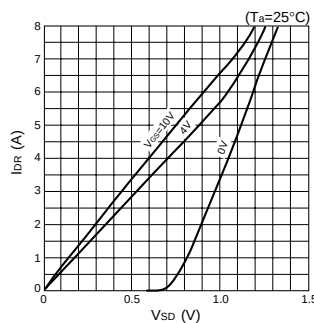
(Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	60			V	$I_D=100\mu A$, $V_{GS}=0V$
I_{GSS}			±100	nA	$V_{GS}=\pm 20V$
I_{DSS}			100	μA	$V_{DS}=60V$, $V_{GS}=0V$
V_{TH}	1.0		2.0	V	$V_{DS}=10V$, $I_D=250\mu A$
$R_{e(yfs)}$		5.5		S	$V_{DS}=10V$, $I_D=3A$
$R_{DS(ON)}$			0.3	Ω	$V_{GS}=4V$, $I_D=3A$
C_{iss}		320		pF	$V_{DS}=10V$, $f=1.0MHz$, $V_{GS}=0V$
C_{oss}		160		pF	
C_{rss}		35		pF	
$t_{d(on)}$		16		ns	$I_D=3A$, $V_{DD}\div 20V$, $R_L=6.67\Omega$, $V_{GS}=5V$, see Fig. 3 on page 16.
t_r		65		ns	
$t_{d(off)}$		70		ns	
t_f		45		ns	
V_{SD}		1.2		V	
t_{rr}		65		ns	$I_{SD}=4A$, $V_{GS}=0V$
					$I_{SD}=3A$, $V_{GS}=0V$, $di/dt=100A/\mu s$

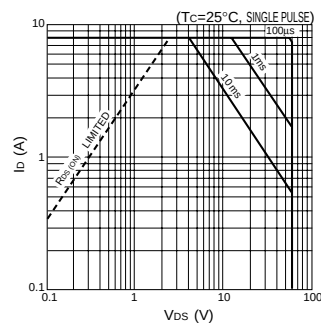
Equivalent circuit diagram



Characteristic curves

 I_D - V_{DS} Characteristics (Typical) I_D - V_{GS} Characteristics (Typical) $R_{DS(ON)}$ - I_D Characteristics (Typical) $R_{e(yfs)}$ - 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