

Absolute maximum ratings

($T_a=25^\circ\text{C}$)

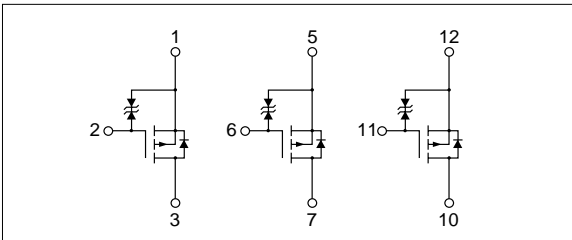
Symbol	Ratings	Unit
V_{DSS}	-60	V
V_{GSS}	± 20	V
I_D	-10	A
$I_D(\text{pulse})$	-15 ($PW \leq 1\text{ms}$, $\text{duty} \leq 25\%$)	A
P_T	4.5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)	W
	30 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite heatsink)	
θ_{j-a}	27.8 (Junction-Air, $T_a=25^\circ\text{C}$, with all circuits operating)	$^\circ\text{C/W}$
θ_{j-c}	4.17 (Junction-Case, $T_c=25^\circ\text{C}$, with all circuits operating)	$^\circ\text{C/W}$
V_{ISO}	1000 (Between fin and lead pin, AC)	V_{rms}
T_{ch}	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

($T_a=25^\circ\text{C}$)

Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	-60			V	$I_D=-100\mu\text{A}$, $V_{GS}=0\text{V}$
I_{GSS}			± 10	nA	$V_{GS}=\pm 20\text{V}$
I_{DSS}			-100	μA	$V_{DS}=-60\text{V}$, $V_{GS}=0\text{V}$
V_{TH}	-1.0		-2.0	V	$V_{DS}=-10\text{V}$, $I_D=-250\mu\text{A}$
$R_{e(yfs)}$		8.7		S	$V_{DS}=-10\text{V}$, $I_D=-5\text{A}$
$R_{DS(ON)}$			0.14	Ω	$V_{GS}=-10\text{V}$, $I_D=-5\text{A}$
C_{iss}		1200		pF	$V_{DS}=-10\text{V}$, $f=1.0\text{MHz}$, $V_{GS}=0\text{V}$
C_{oss}		440		pF	
C_{rss}		120		pF	
$t_{d(on)}$		50		ns	$I_D=-5\text{A}$, $V_{DD}=-20\text{V}$, $R_L=4\Omega$, $V_{GS}=-5\text{V}$, $R_G=50\Omega$, see Fig. 4 on page 16.
t_r		170		ns	
$t_{d(off)}$		180		ns	
t_f		100		ns	
V_{SD}	-1.25			V	
t_{rr}		100		ns	$I_{SD}=-5\text{A}$, $di/dt=100\text{A}/\mu\text{s}$

Equivalent circuit diagram



Characteristic curves

