

Absolute maximum ratings

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

Symbol	Ratings	Unit
V_{DSS}	200	V
V_{GSS}	± 20	V
I_D	± 10	A
$I_{D(\text{pulse})}$	± 40 ($PW \leq 100\mu\text{s}$, $\text{duty} \leq 1\%$)	A
E_{AS}^*	350	mJ
P_T	5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)	W
	70 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite heatsink)	
θ_{j-a}	25 (Junction-Air, $T_a=25^\circ\text{C}$, with all circuits operating)	$^\circ\text{C/W}$
θ_{j-c}	1.79 (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	$^\circ\text{C}$

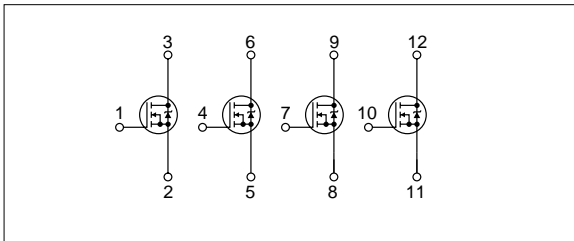
* : $V_{DD}=25\text{V}$, $L=6\text{mH}$, $I_D=10\text{A}$, unclamped, $R_G=50\Omega$, see Fig. E on page 15.

Electrical characteristics

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

Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	200			V	$I_D=100\mu\text{A}$, $V_{GS}=0\text{V}$
I_{GSS}			± 100	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	$V_{DS}=10\text{V}$, $I_D=250\mu\text{A}$
$R_{E(yfs)}$	10	16		S	$V_{DS}=10\text{V}$, $I_D=5\text{A}$
		100	120		
$R_{DS(ON)}$		110	135	m Ω	$V_{GS}=10\text{V}$, $I_D=5\text{A}$
					$V_{GS}=4\text{V}$, $I_D=5\text{A}$
C_{iss}		1500		pF	$V_{DS}=10\text{V}$,
C_{oss}		680		pF	$f=1.0\text{MHz}$,
C_{rss}		330		pF	$V_{GS}=0\text{V}$
$t_{d(on)}$		30		ns	$I_D=5\text{A}$, $V_{DD} \div 100\text{V}$, $R_L=10\Omega$, $V_{GS}=5\text{V}$, see Fig. 3 on page 16.
t_r		80		ns	
$t_{d(off)}$		230		ns	
t_f		140		ns	
V_{SD}		0.9	1.5	V	
					$I_{SD}=10\text{A}$, $V_{GS}=0\text{V}$

Equivalent circuit diagram



Characteristic curves