

## Absolute maximum ratings

(Ta=25°C)

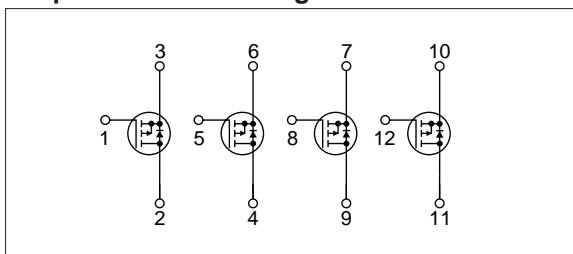
Symbol	Ratings	Unit
V <sub>DSS</sub>	-100	V
V <sub>GSS</sub>	±20	V
I <sub>D</sub>	±5	A
I <sub>D(pulse)</sub>	±10 (PW≤1ms)	A
P <sub>T</sub>	5 (Ta=25°C, with all circuits operating, without heatsink) 35 (Tc=25°C, with all circuits operating, with infinite heatsink)	W
θ <sub>j-a</sub>	25 (Junction-Air, Ta=25°C, with all circuits operating)	°C/W
θ <sub>j-c</sub>	3.57 (Junction-Case, Tc=25°C, with all circuits operating)	°C/W
V <sub>iso</sub>	1000 (Between fin and lead pin, AC)	Vrms
T <sub>ch</sub>	150	°C
T <sub>tstg</sub>	-40 to +150	°C

## Electrical characteristics

(Ta=25°C)

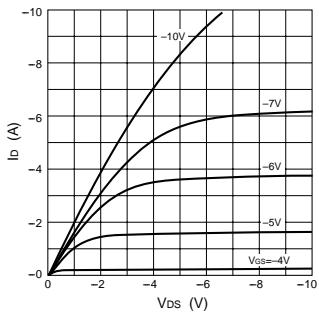
Symbol	Specifications			Unit	Condition
	min	typ	max		
V <sub>(BR)DSS</sub>	-100			V	I <sub>D</sub> =-250μA, V <sub>GS</sub> =0V
I <sub>GSS</sub>			±500	nA	V <sub>GS</sub> =±20V
I <sub>DSS</sub>			-250	μA	V <sub>DS</sub> =-100V, V <sub>GS</sub> =0V
V <sub>TH</sub>	-2.0		-4.0	V	V <sub>DS</sub> =-10V, I <sub>D</sub> =-250μA
R <sub>e(yfs)</sub>	0.9	2.0		S	V <sub>DS</sub> =-10V, I <sub>D</sub> =-5A
R <sub>Ds(ON)</sub>		0.55	0.7	Ω	V <sub>GS</sub> =-10V, I <sub>D</sub> =-5A
C <sub>iss</sub>		300		pF	V <sub>DS</sub> =-25V, f=1.0MHz,
C <sub>oss</sub>		200		pF	V <sub>GS</sub> =0V
t <sub>on</sub>		150		ns	I <sub>D</sub> =-5A, V <sub>DD</sub> =-50V, V <sub>GS</sub> =-10V,
t <sub>off</sub>		200		ns	see Fig. 4 on page 16.
V <sub>SD</sub>		-4.5	-5.5	V	I <sub>SD</sub> =-5A, V <sub>GS</sub> =0V
t <sub>rr</sub>		220		ns	I <sub>SD</sub> =±100mA

## ■ Equivalent circuit diagram

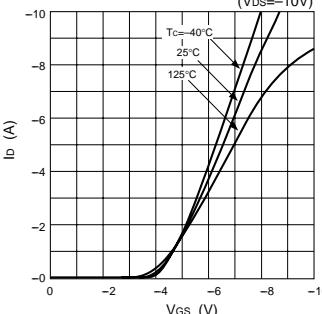


## Characteristic curves

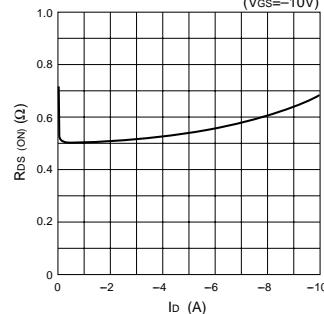
I<sub>D</sub>-V<sub>DS</sub> Characteristics (Typical)



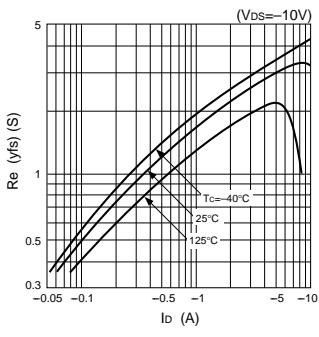
I<sub>D</sub>-V<sub>GS</sub> Characteristics (Typical)



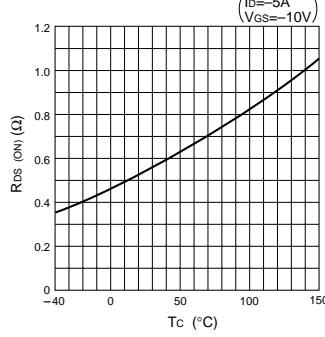
R<sub>Ds(ON)</sub>-I<sub>D</sub> Characteristics (Typical)



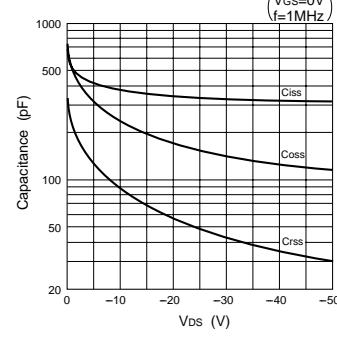
R<sub>e(yfs)</sub>-I<sub>D</sub> Characteristics (Typical)



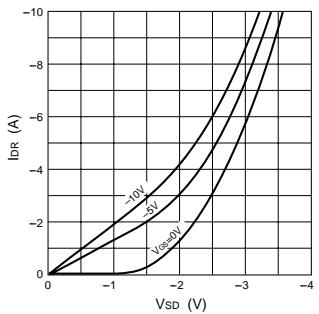
R<sub>Ds(ON)</sub>-T<sub>c</sub> Characteristics (Typical)



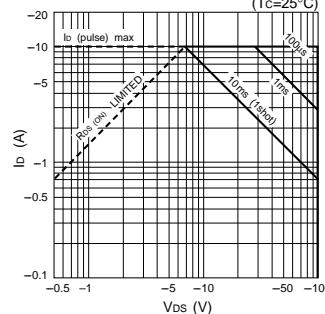
Capacitance-V<sub>DS</sub> Characteristics (Typical)



I<sub>DR</sub>-V<sub>SD</sub> Characteristics (Typical)



Safe Operating Area (SOA)



P<sub>T</sub>-T<sub>a</sub> Characteristics

