

Absolute maximum ratings

(Ta=25°C)

Symbol	Ratings	Unit
V _{DSS}	150	V
V _{GSS}	±20	V
I _D	±10	A
I _{D(pulse)}	±40 (PW≤1ms, Du≤1%)	A
E _{AS*}	280	mJ
P _T	5 (Ta=25°C, with all circuits operating, without heatsink)	W
	40 (Tc=25°C, with all circuits operating, with infinite heatsink)	W
θ _{J-a}	25 (Junction-Air, Ta=25°C, with all circuits operating)	°C/W
θ _{J-c}	3.13 (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

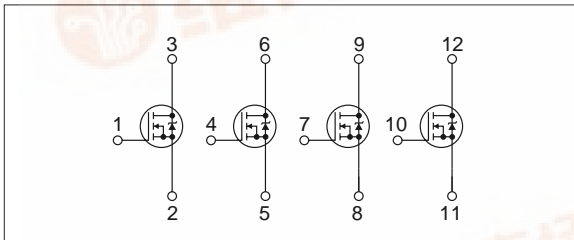
* : V_{DD}=25V, L=4.7mH, I_D=10A, unclamped, R_G=50Ω, see Fig. E on page 15.

Electrical characteristics

(Ta=25°C)

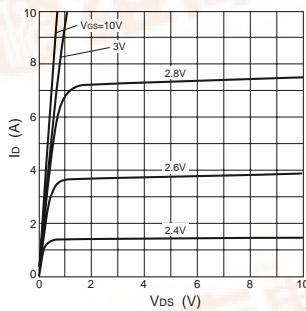
Symbol	Specification			Unit	Specification
	min	typ	max		
V _{(BR)DSS}	150			V	I _D =100μA, V _{GS} =0V
I _{GSS}			±100	nA	V _{GS} =±20V
I _{DSS}			100	μA	V _{DS} =150V, V _{GS} =0V
V _{TH}	1.0		2.0	V	V _{DS} =10V, I _D =250μA
R _{e(yfs)}	10	15		S	V _{DS} =10V, I _D =5A
		70	85	mΩ	V _{GS} =10V, I _D =5A
R _{DS(ON)}		80	100	mΩ	V _{GS} =4V, I _D =5A
C _{iss}		2000		pF	V _{DS} =10V, f=1.0MHz,
C _{oss}		470		pF	V _{GS} =0V
td(on)		35		ns	I _D =5A, V _{DD} ≐70V, R _L =14Ω, V _{GS} =5V, see Fig. 3 on page 16.
tr		40		ns	
td(off)		150		ns	
tf		50		ns	
V _{SD}		0.9	1.5	V	I _{SD} =10A, V _{GS} =0V
t _{rr}		500		ns	I _{SD} =±100mA

Equivalent circuit diagram

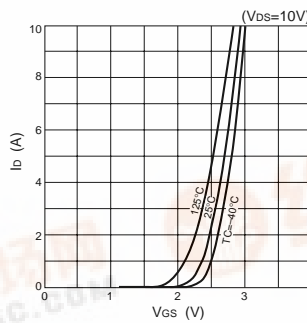


Characteristic curves

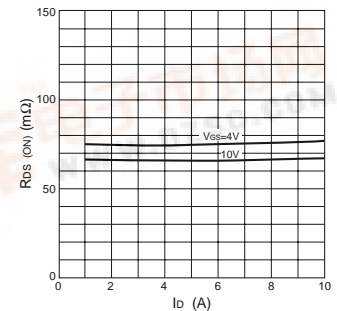
I_D-V_{DS} Characteristics (Typical)



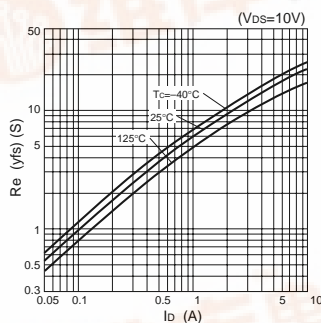
I_D-V_{GS} Characteristics (Typical)



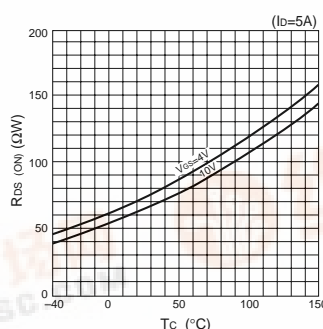
R_{DS(ON)}-I_D Characteristics (Typical)



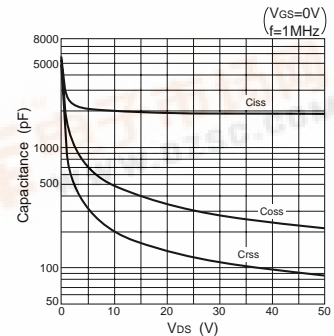
R_{e(yfs)}-I_D Characteristics (Typical)



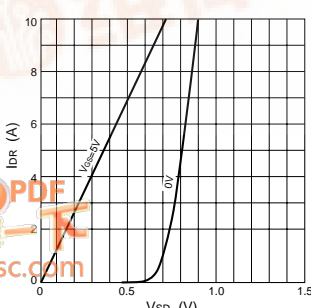
R_{DS(ON)}-T_C Characteristics (Typical)



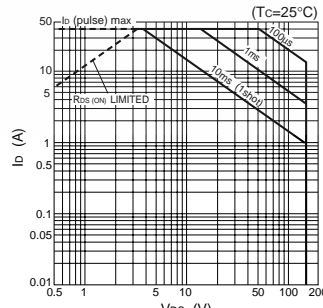
Capacitance-V_{DS} Characteristics (Typical)



I_{DR}-V_{SD} Characteristics (Typical)



Safe Operating Area (SOA)



P_T-T_a Characteristics

