/ Absolute Maximum Ratings(Tc=25)

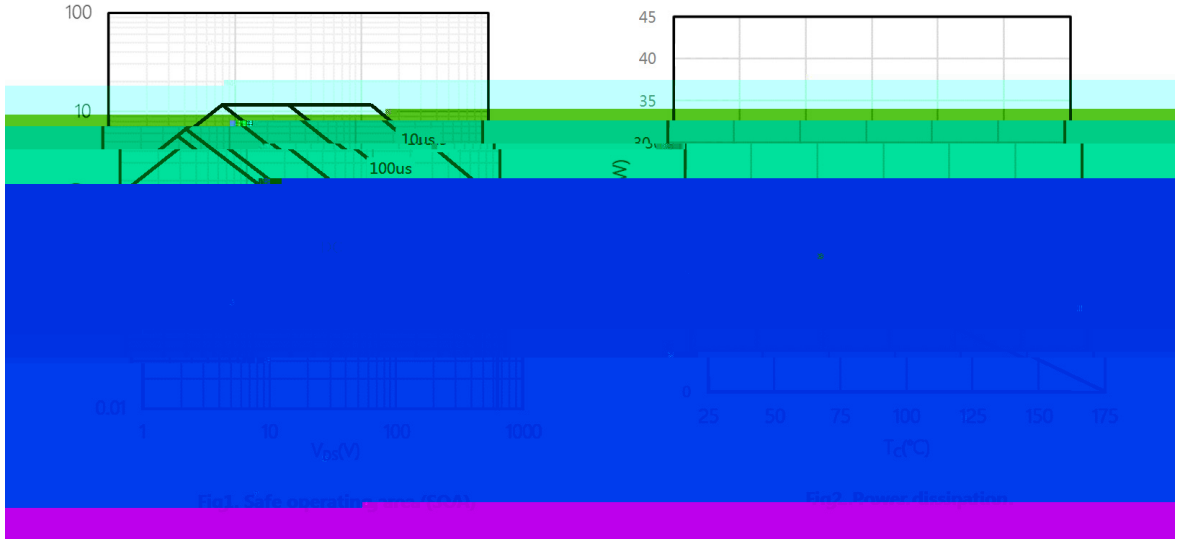
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Continuous DC Drain Current for $R_{th(j-c,typ.)}$, Limited by $T_{VJ(max)}$	I_D(Tc=25)	7	A
	I_D(Tc=100)	5.7	A
Peak Drain Current, tp Limited by $T_{VJ(max)}$	I_{DM}	12	A
Gate-Source Max Voltage	$V_{GS,max}$	-10/+22	V
Gate-Source Operate Voltage	$V_{GS,op}$	0/+15	V
Single Pulse Avalanche Energy	E_{AS}	10.2	mJ
Power Dissipation or $R_{th(j-c,typ.)}$	P_D(Tc=25)	23	W
Operating and Storage Temperature Range	T_{VJ},T_{STG}	-55 to 175	
MOSFET/Body Diode Junction-Case Thermal Resistance	$R_{th(j-c)}$	6.52	/W

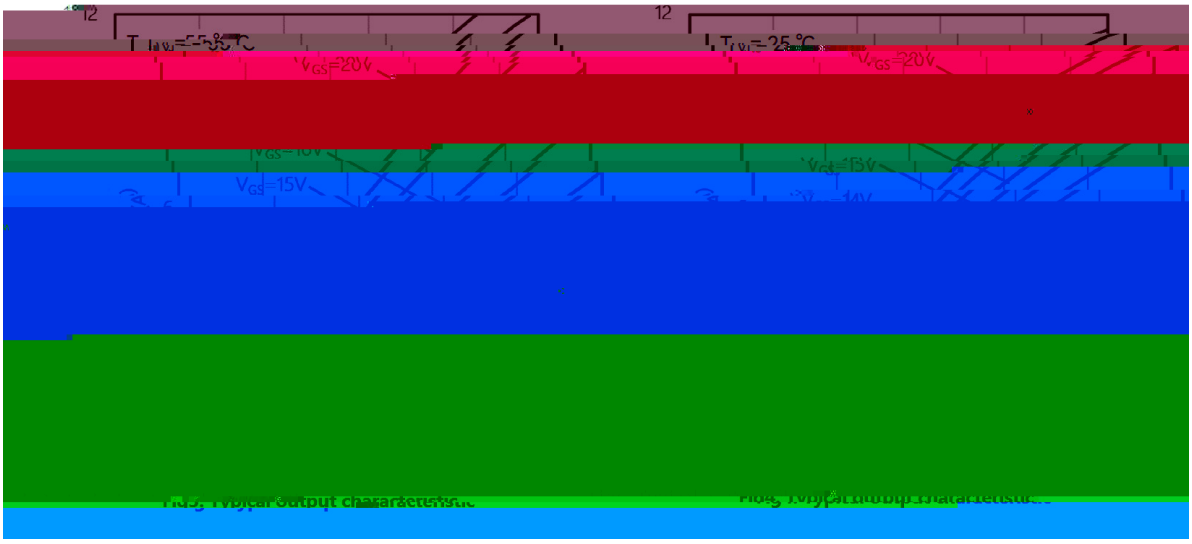
/ Electrical Characteristics(Tc=25)

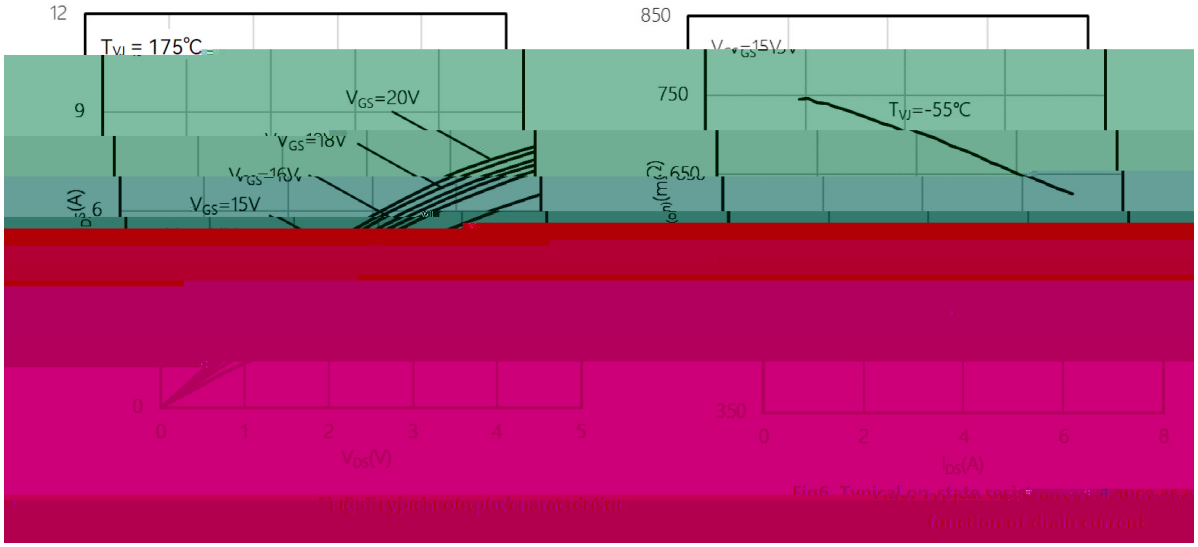
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=100 A	650			V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=3.5mA	3		5	V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=650V V_{GS}=0V		0.1	20	A
Gate-Source Leakage Current	I_{GSS}	V_{GS}=22V V_{DS}=0V			250	nA
Source-Gate Leakage Current	I_{SGS}	V_{GS}=-10V V_{DS}=0V			250	nA
Drain-Source On-State Resistance	$R_{DS(on)}$	V_{GS}=15V I_D=4A		500	650	m
		V_{GS}=15V I_D=4A T_{VJ}=175		509		
		V_{GS}=18V I_D=4A		378	600	
		V_{GS}=18V I_D=4A T_{VJ}=175		454		
Body Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=2A		3.8		V
Continuous DC Source Current	I_S			6		A
Peak Reverse Drain Current	I_{SM}			12		A
Reverse Recovery Time	t_{rr}	V_{GS} = 0V, I_{SD}=4A, V_R=400V, di/dt=1.1kA/us		7.9		ns
Reverse Recovery Charge	Q_{rr}			20		nC
Peak Reverse Recovery Current	I_{rrm}			4.2		A
Reverse Recovery Energy	E_{rr}			0.19		J

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	t					

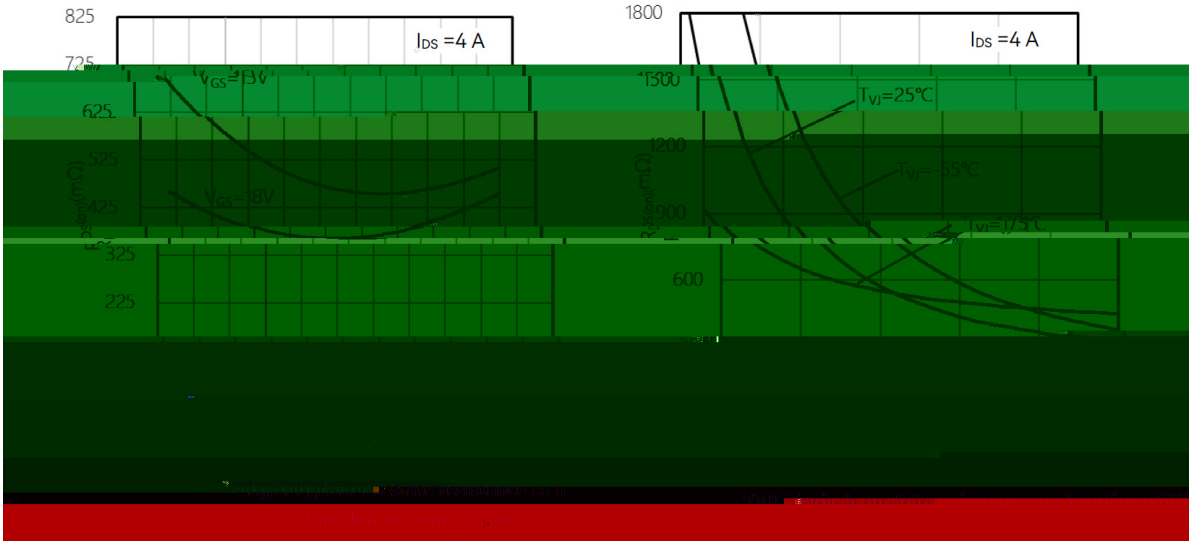
/ Electrical Characteristic Curve







/ Electrical Characteristic Curve



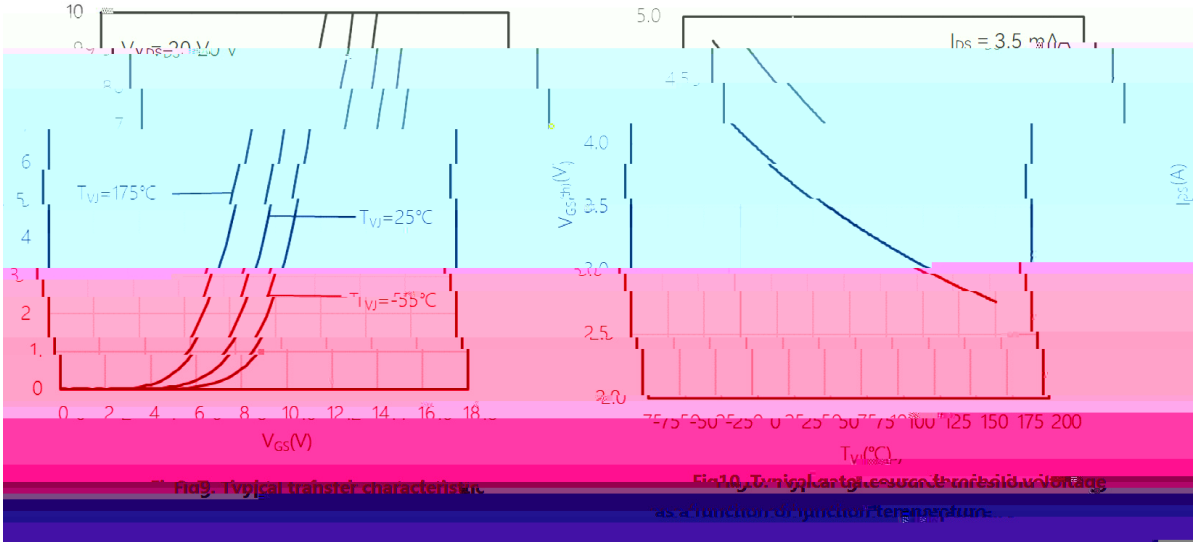


Fig9. Typical transfer characteristic

Fig10. Typical gate-source threshold voltage as a function of junction temperature

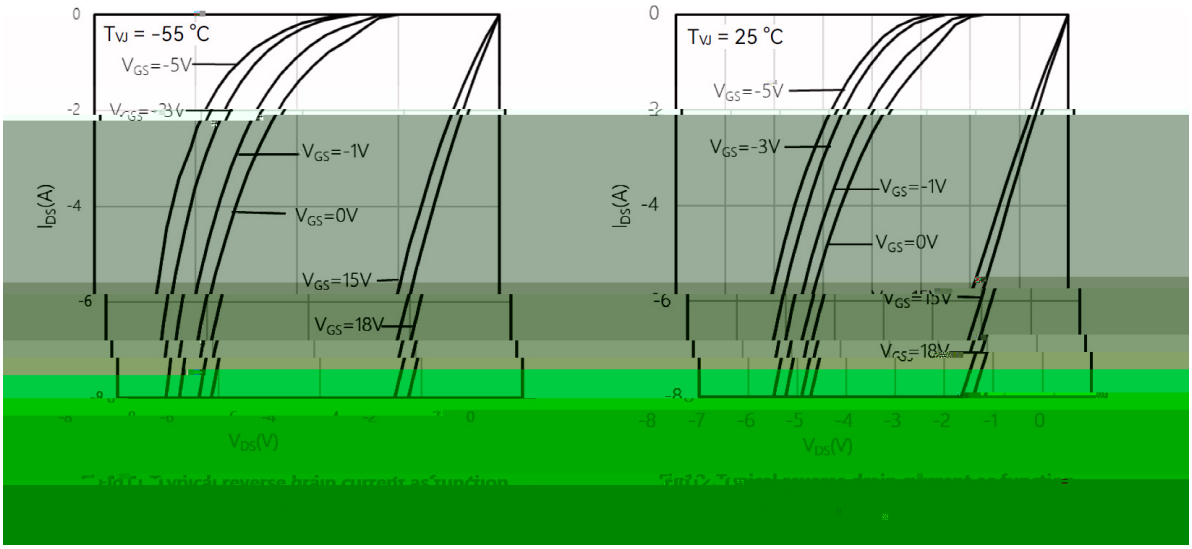
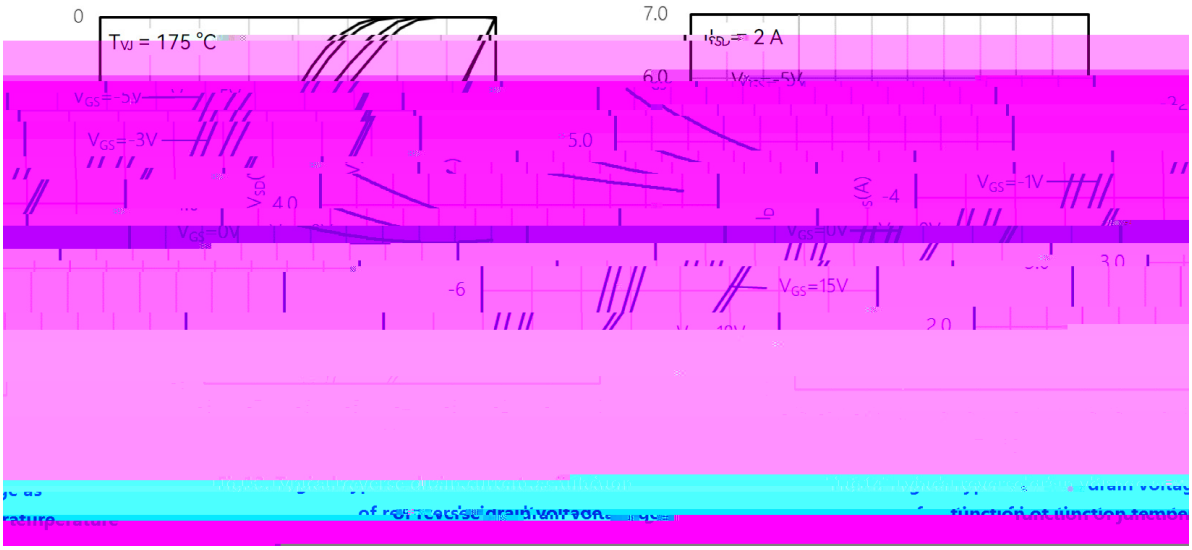
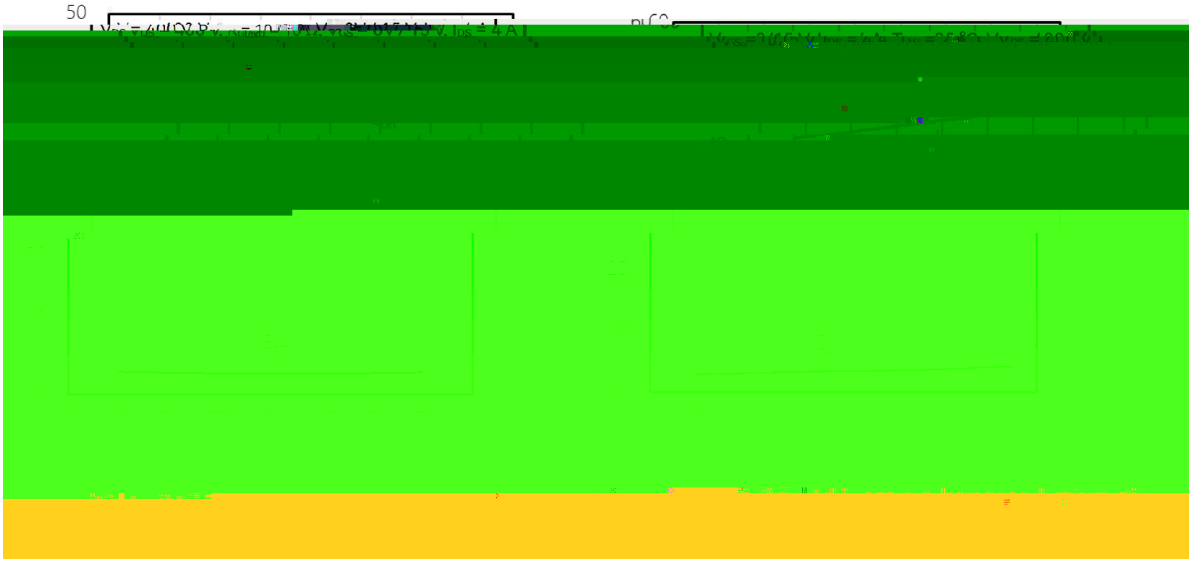


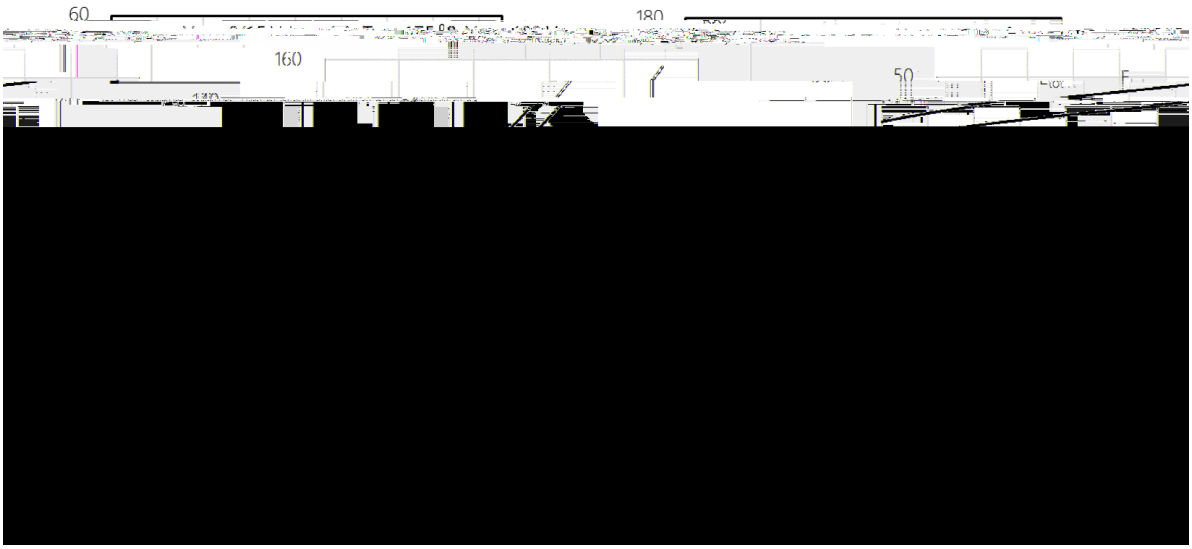
Fig11. Typical reverse drain current as function

Fig12. Typical reverse drain current as function

/ Electrical Characteristic Curve







/ Electrical Characteristic Curve

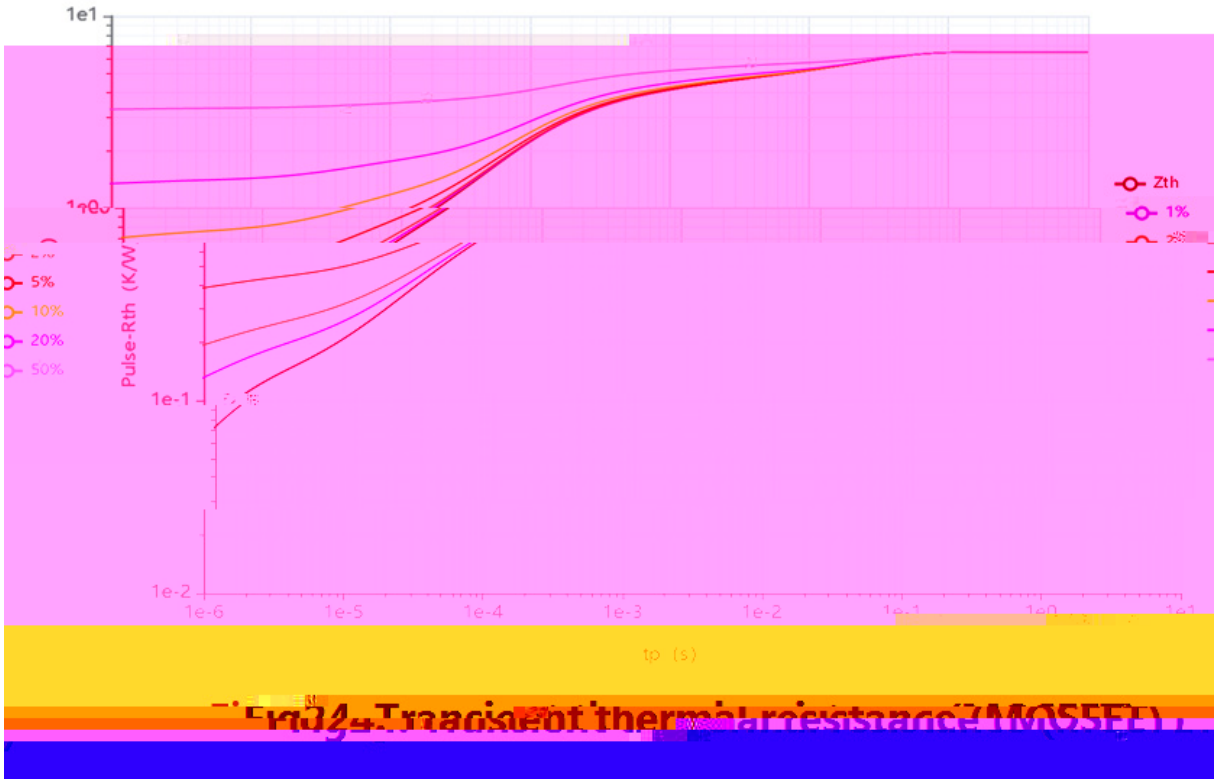


Fig.24 Transient thermal resistance(MOSFET)

BRSC65R600ZFA