TO-252 N MOS
N-CHANNEL MOSFET in a TO-252 Plastic Package.

V_{DS}=450V I_D=7A
$R_{DS(ON)}$@10V ≤ 1.2Ω(Typ. 1.0Ω)
HF Product.

DC/DC
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

PIN1 G PIN 2 D PIN 3 S PIN 4 D

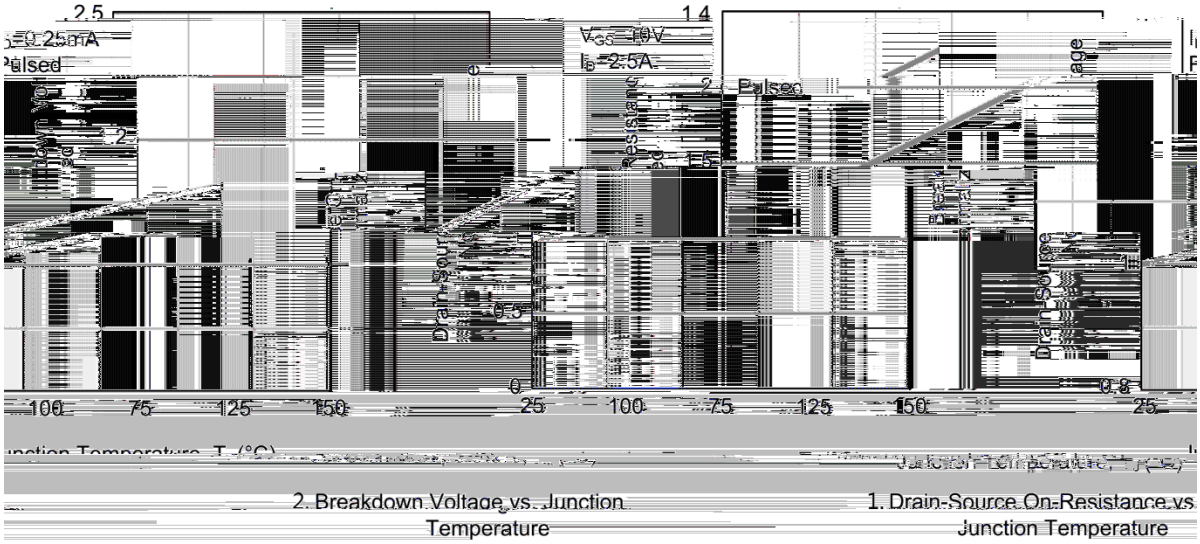
/ Marking

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	450	V
Drain Current	I_D(Tc=25)	7	A
Drain Current - Pulsed	I_{DM}	28	A
Gate-Source Voltage	V_{GS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	308	mJ
Avalanche Current	I_{AS}	7.4	A
Power Dissipation	P_D(Tc=25)	50	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	
Junction to Ambient	$R_{\theta JA}$	110	/W
Junction to Case	$R_{\theta JC}$	2.5	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit

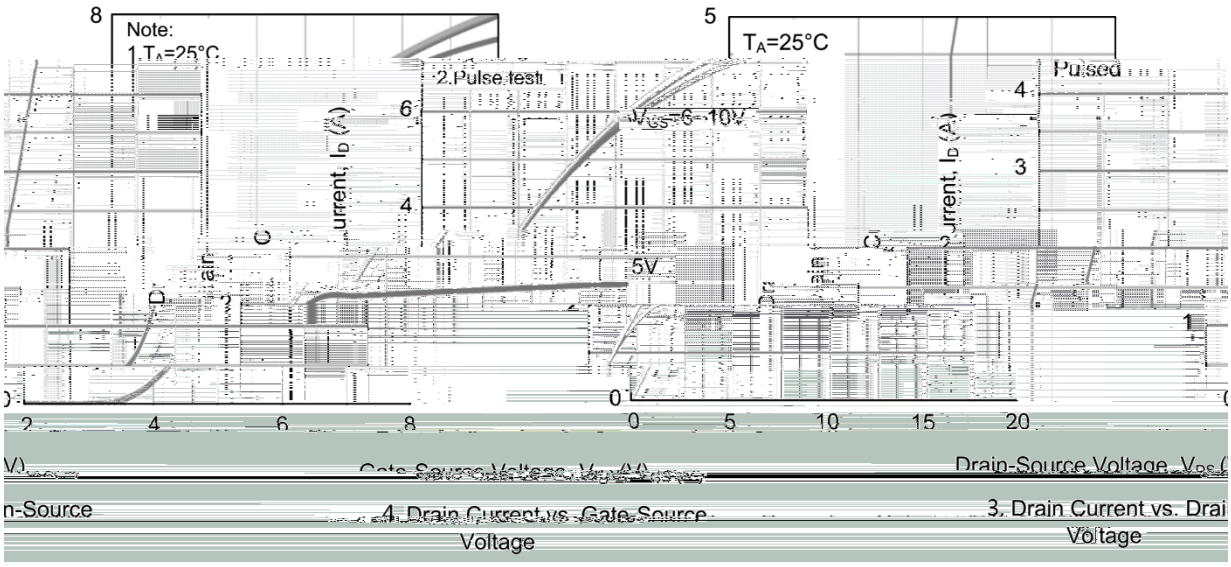
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=250V I_D=7.0A V_{GS}=10V R_G=25Ω		42.4		ns
Turn-On Rise Time	t_r			16.9		
Turn-Off Delay Time	$t_{d(off)}$			31.8		
Turn-Off Fall Time	t_f			16.5		
Maximum Continuous Drain-Source Diode Forward Current	I_S				7	A
Maximum Pulsed Drain-Source Diode Forward Current	I_{SM}					

/ Electrical Characteristic Curve



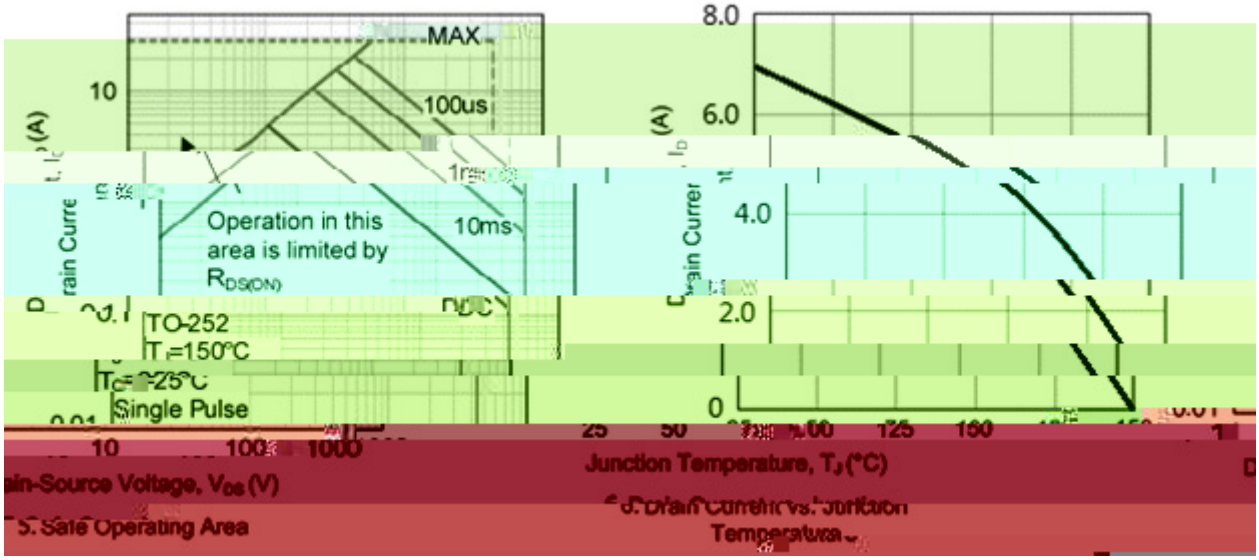
2. Breakdown Voltage vs. Junction Temperature

1. Drain-Source On-Resistance vs Junction Temperature



4. Drain Current vs. Gate Source Voltage

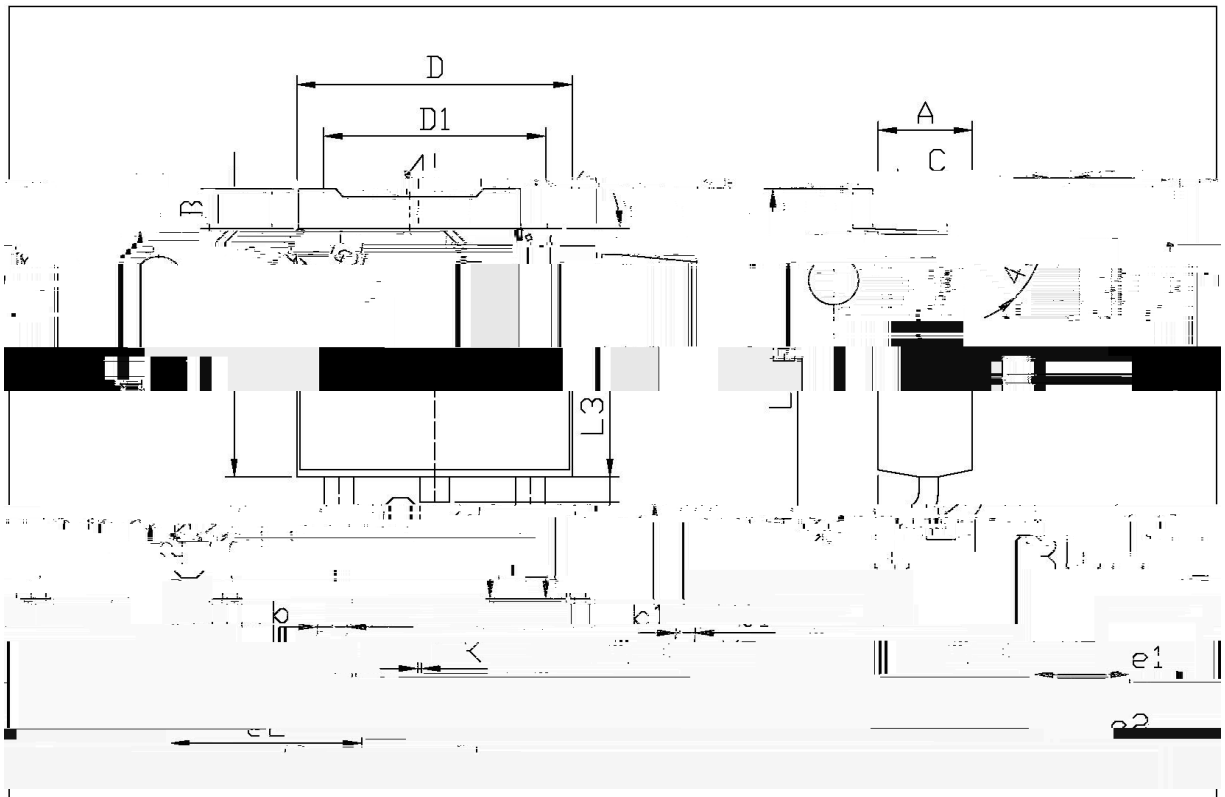
3. Drain Current vs. Drain Voltage



5. Safe Operating Area

6. Drain Current vs. Junction Temperature

/ Package Dimensions

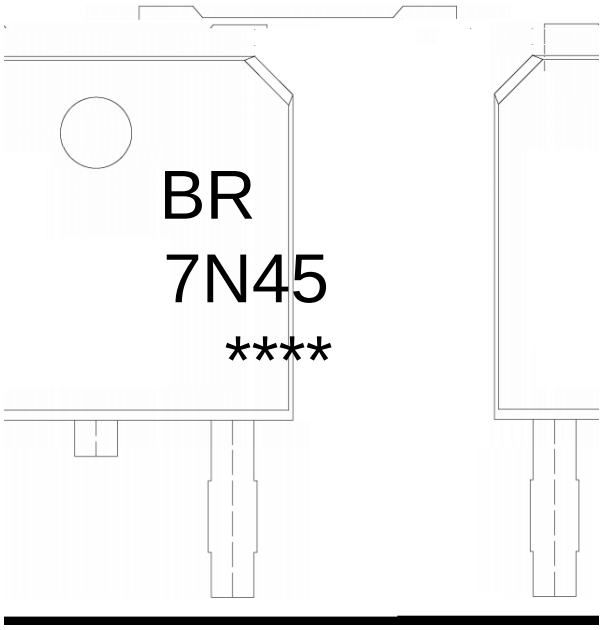


单位：mm

Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
B	0.95	1.25	e		2.24
	0.10		D1	5.10	5.50

2 TO-25

/ Marking Instructions



BR

7N45

****

Note:

BR:	Company Code
7N45:	Product Type Code
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

				Note:
1	150	180	60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2	245±5		5±0.5sec;	2.Peak Temp.:245±5 , Duration:5±0.5sec.
3		2 10	/sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units	Dimension	(unit mm³)