

Rev.A Apr.-2025

TO-252 N 650V

N-CHANNEL 650V Super-Junction Power MOSFET in a TO-252 Plastic Package.

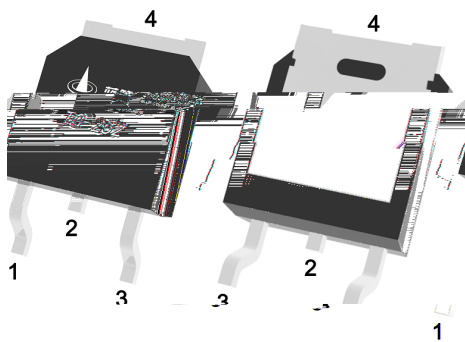
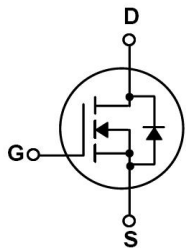
$R_{DS(on)}$

C_{rss}

Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching, HF Product.

DC/DC

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.



PIN1 G

PIN 2 D

PIN 3 S

PIN 4 D

See Marking Instructions.

Parameter

Symbol

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Continuous Diode Forward Current	I_s				8.5	A

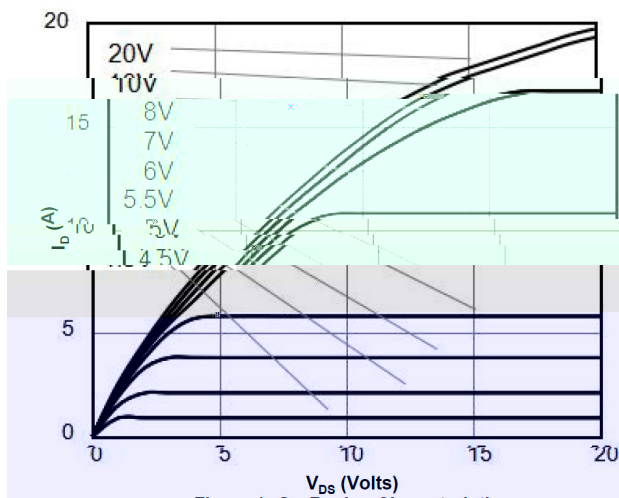


Figure 1: On-Region Characteristics

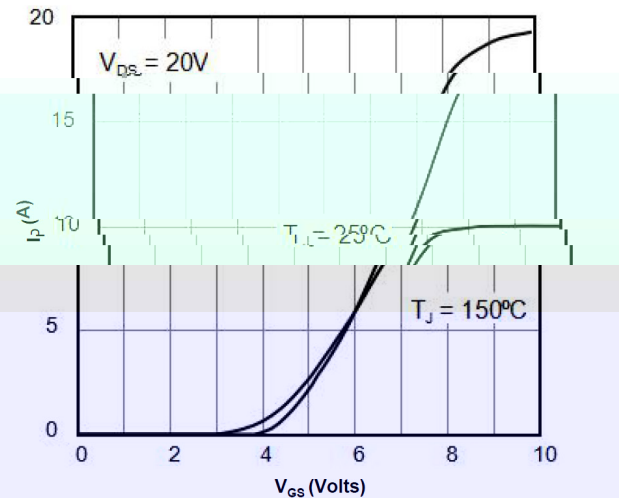


Figure 2: Transfer Characteristics

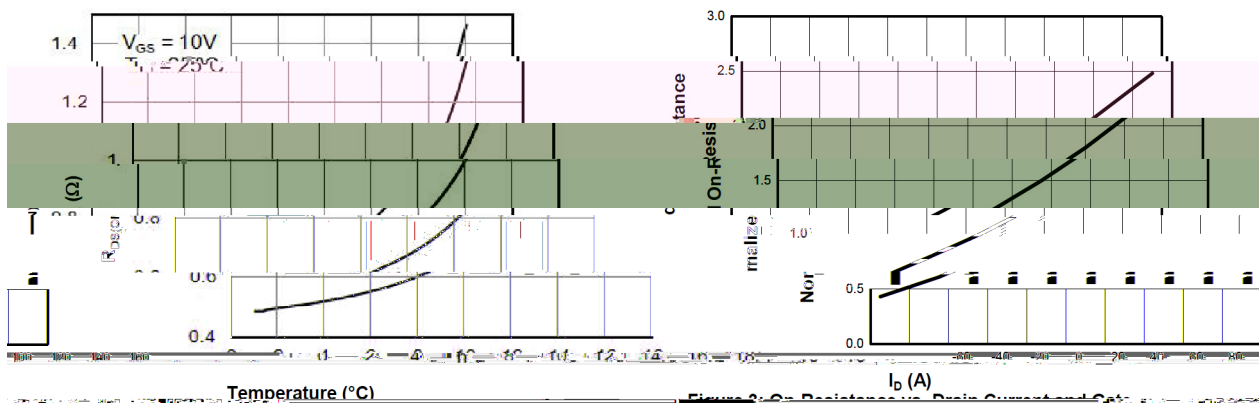


Figure 3: On-Resistance vs. Drain Current and Gate-Source Voltage

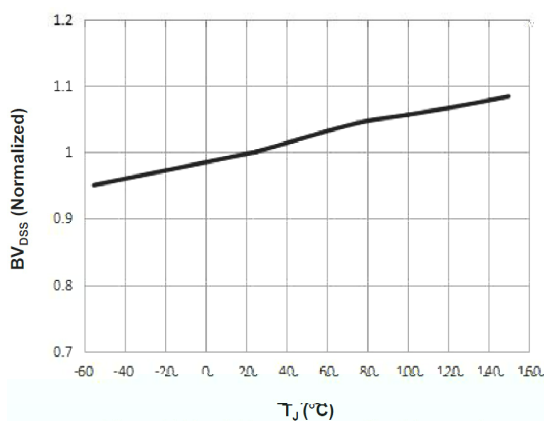


Figure 5: Break Down vs. Junction Temperature

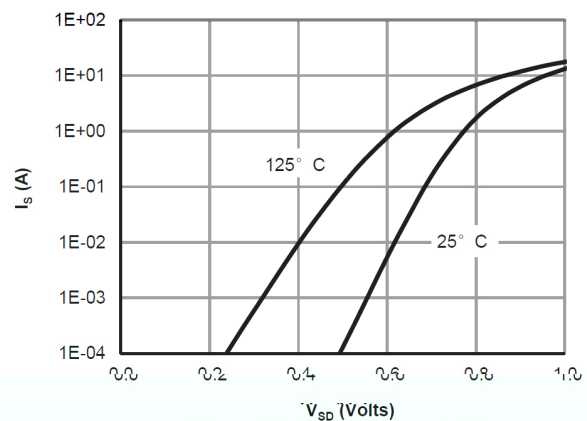


Figure 6: Body-Diode Characteristics

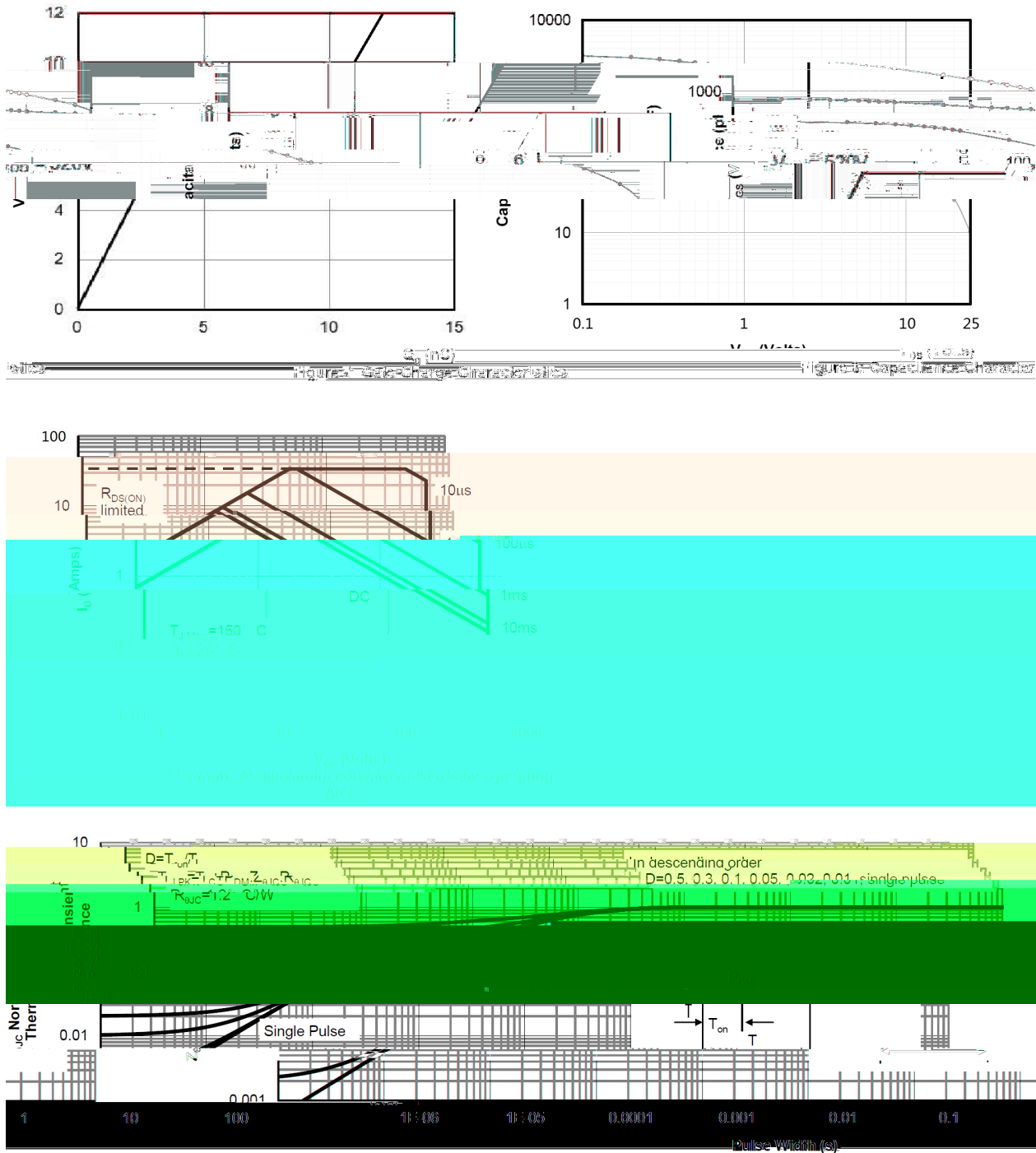
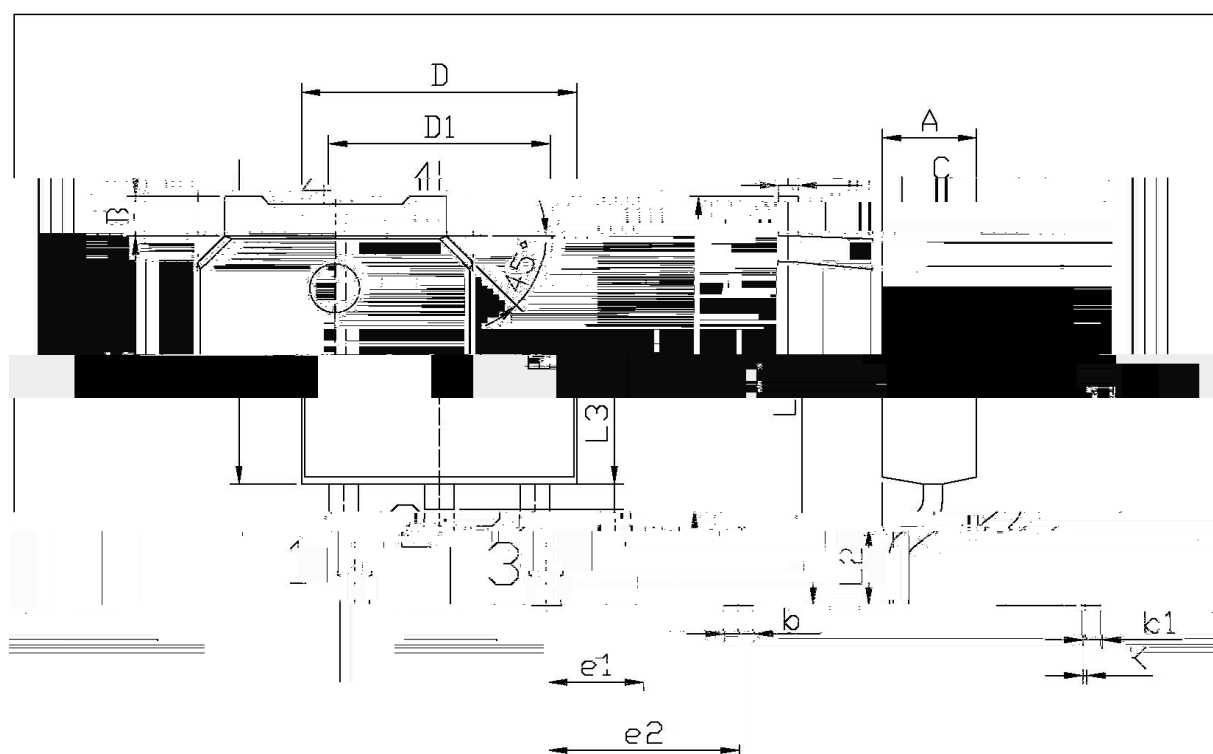


Figure 10: Normalized Maximum Transient Thermal Impedance

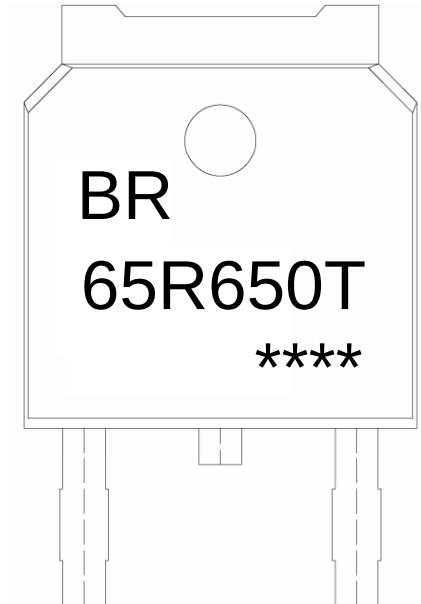


单位: mm

Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	6.25	6.75	B	0.95	1.25
B	2.24	2.34	C	0.55	0.60
C	0.55	0.60	D	6.45	6.75
D	6.45	6.75	D1	5.10	5.50
D1	5.10	5.50	E	0.00	0.10
E	0.00	0.10	F	0.00	0.10
F	0.00	0.10	G	0.00	0.10
G	0.00	0.10	H	0.00	0.10
H	0.00	0.10	I	0.00	0.10
I	0.00	0.10	J	0.00	0.10
J	0.00	0.10	K	0.00	0.10
K	0.00	0.10	L	0.00	0.10
L	0.00	0.10	M	0.00	0.10
M	0.00	0.10	N	0.00	0.10
N	0.00	0.10	O	0.00	0.10
O	0.00	0.10	P	0.00	0.10
P	0.00	0.10	Q	0.00	0.10
Q	0.00	0.10	R	0.00	0.10
R	0.00	0.10	S	0.00	0.10
S	0.00	0.10	T	0.00	0.10
T	0.00	0.10	U	0.00	0.10
U	0.00	0.10	V	0.00	0.10
V	0.00	0.10	W	0.00	0.10
W	0.00	0.10	X	0.00	0.10
X	0.00	0.10	Y	0.00	0.10
Y	0.00	0.10	Z	0.00	0.10
Z	0.00	0.10			

252

T0-2



BR

65R650T

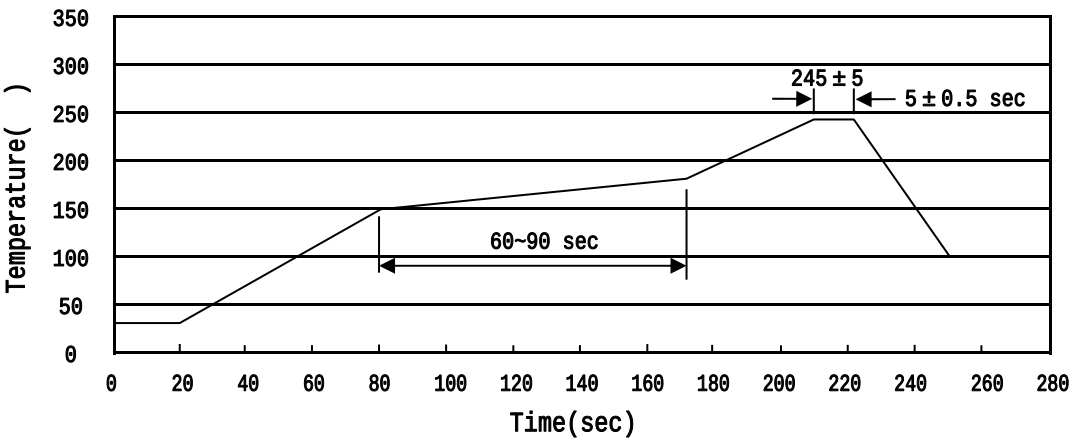
Note:

BR: Company Code

65R650T: 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.

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

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180