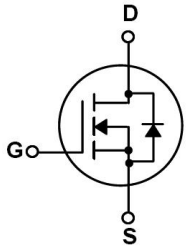
TO-252 N MOS

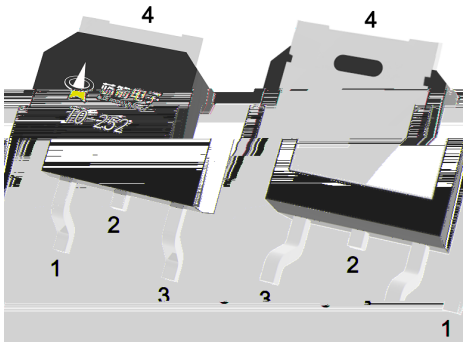
SiC N-CHANNEL MOSFET in a TO-252 Plastic Package.

V_{DS}=800V I_D=6.9A

$R_{DS(on)}$@15V≤1300mΩ(Type.1000mΩ)

Switch Mode Power Supplies,High Voltage DC/DC Converters,Battery Chargers,Motor Drives,Pulsed Power Applications.





PIN1 G PIN 2 D PIN 3 S PIN 4 D

See Marking Instructions.

Rev.A Jul.-2026

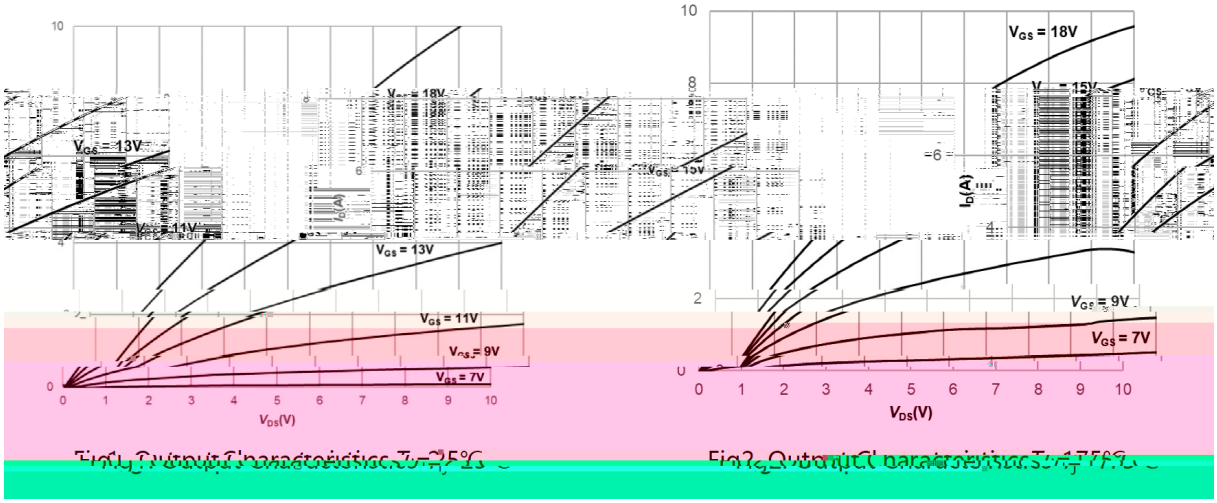
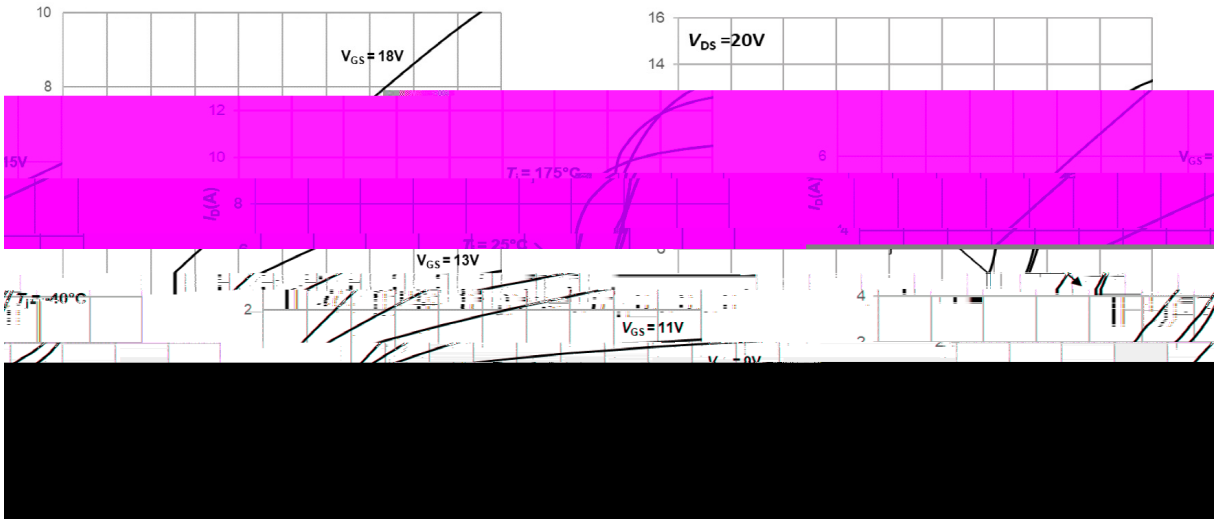
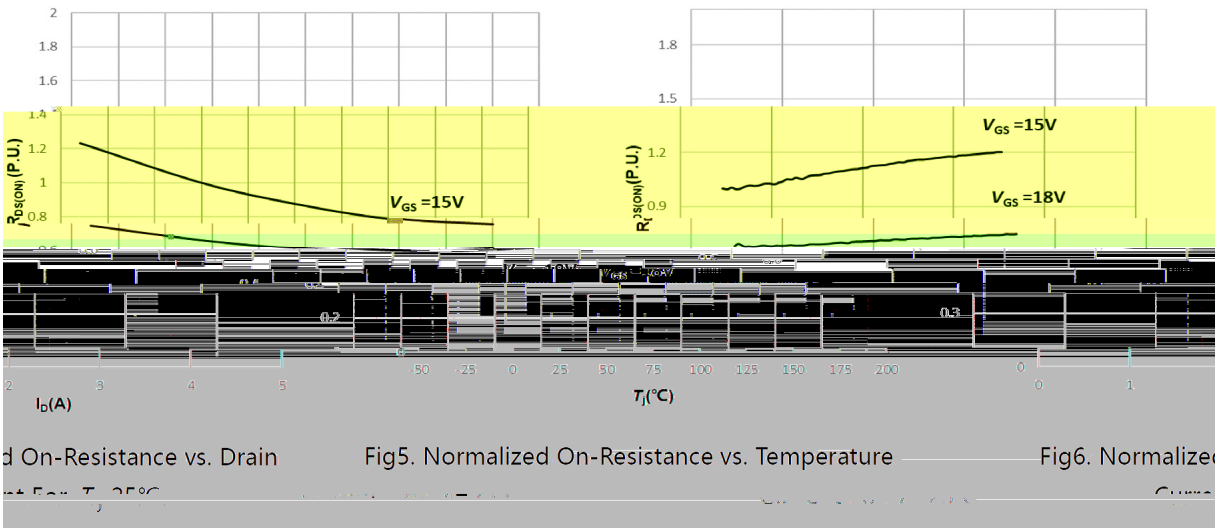


Fig1. Output Characteristics T_j=25°C

Fig2. Output Characteristics T_j=175°C

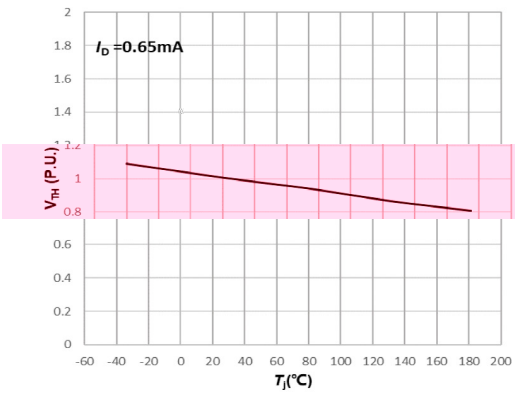




d On-Resistance vs. Drain

Fig5. Normalized On-Resistance vs. Temperature

Fig6. Normalize



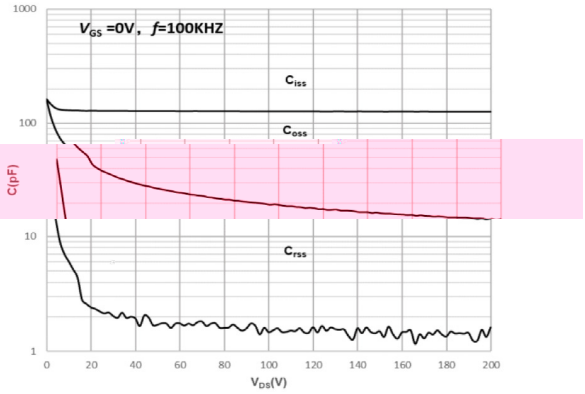


Fig.7 Normalized Threshold Voltage vs Temperature　　Fig.8 Capacitance vs Drain-Source Voltage

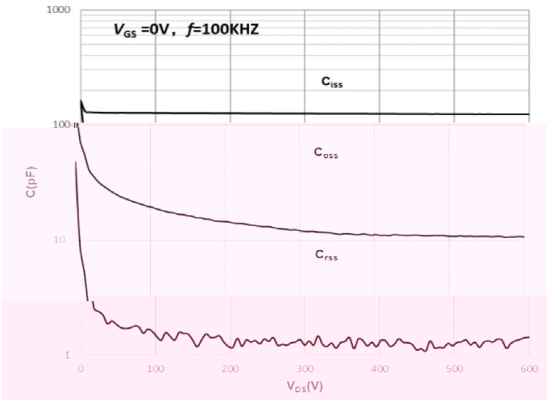


Fig.9 Capacitance vs Drain-Source Voltage

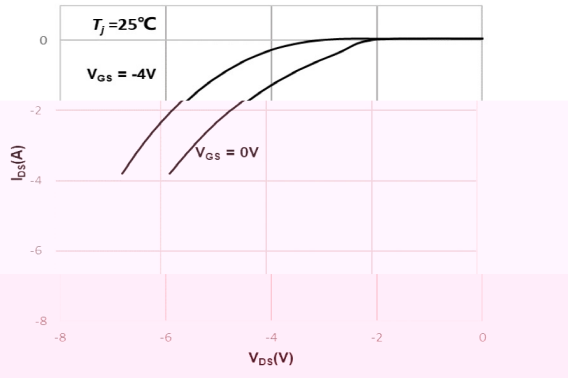


Fig.10 Body Diode Characteristics

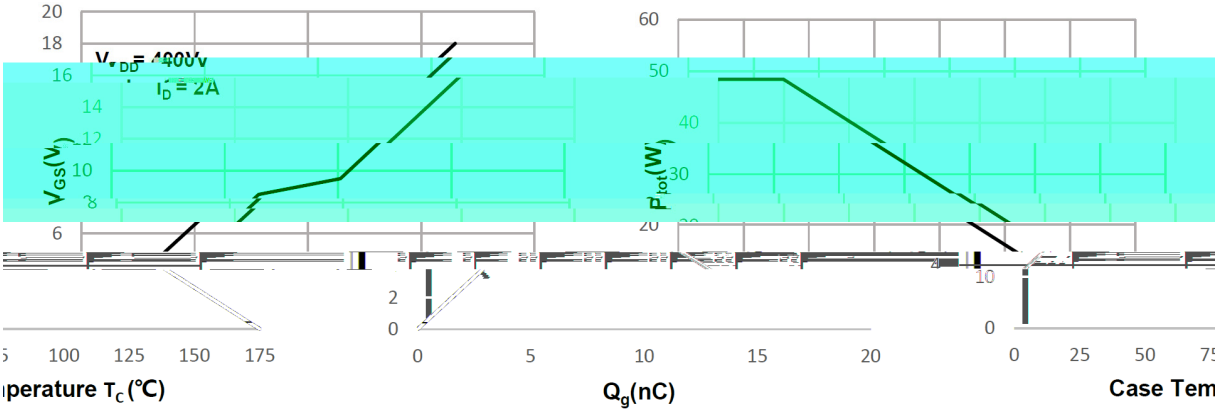


Fig.11 Gate Charge Test Circuit　　Fig.12 Power Dissipation

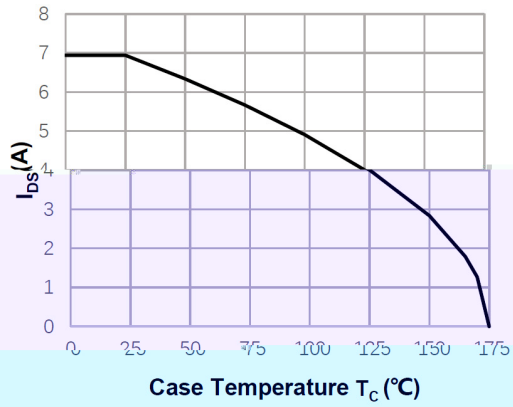
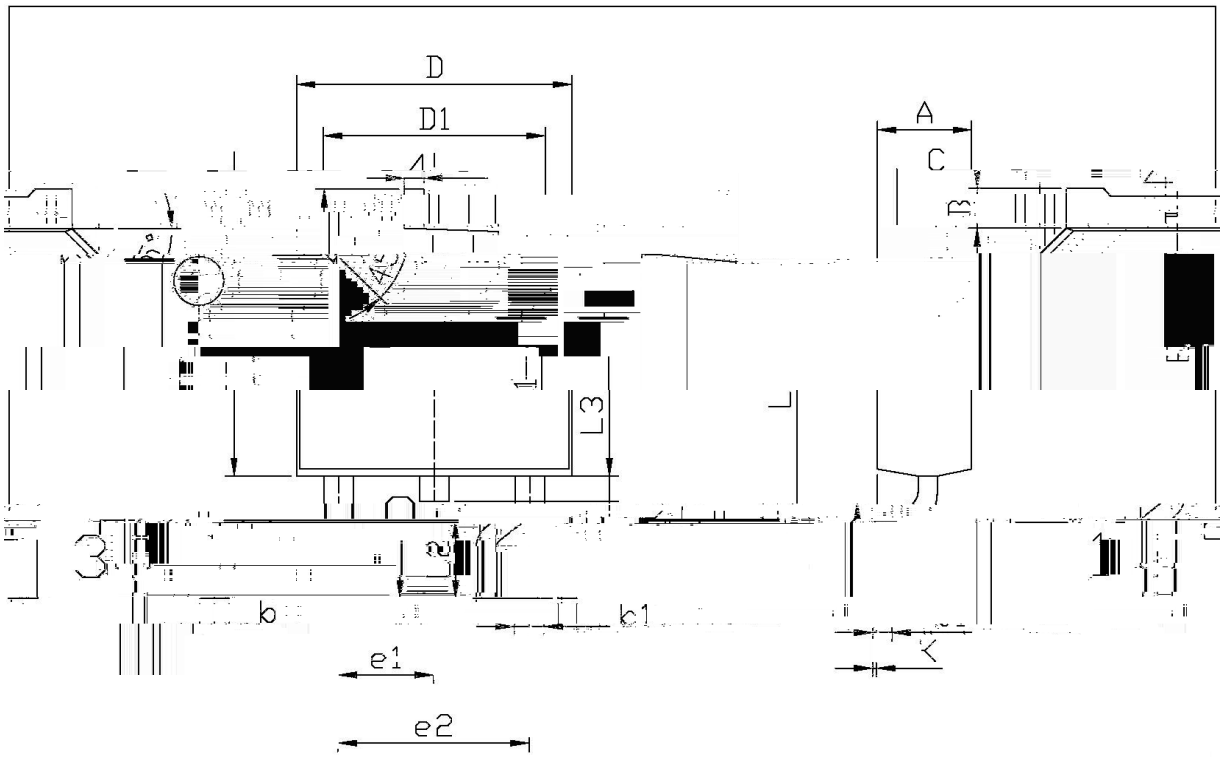


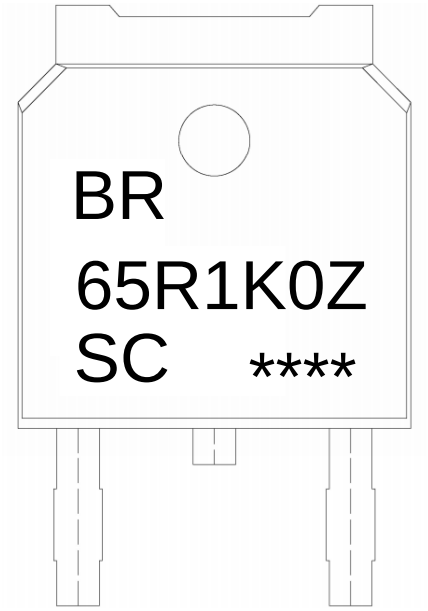
Fig13. Continuous Drain Current vs. Case Temperature



单位：mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.20	2.40			
B	0.95	1.25	e1	2.24	2.34
b	0.70	0.90	e2	4.48	4.68
b1	0.45	0.55	E1	9.85	10.35
c	0.45	0.55	H	1.70	2.00
L	0.60	0.90	D1	6.45	6.65
L3	0.60	0.90			
K	0.00	0.10			

TO-252

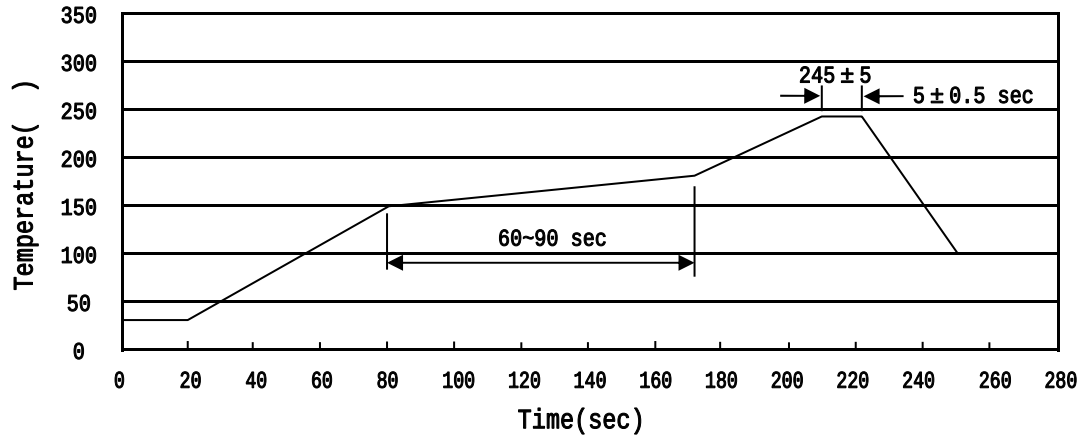


BR

Note:

BR:	Company Code
65R1K0Z:	Product Type Code
SC:	SiC
****:	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 mm³)
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension		(unit mm³)
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180