

修订记录 / Revised record

A	2022.4.21	ALL	AOS-AOD600A70		
B	2022.5.26	2,3,4,5	YC-RMX65R380SN_ReV1.0		

描述 / Descriptions

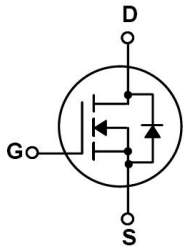
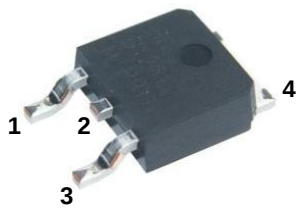
TO-252 N 650V

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

特征 / Features $R_{DS(on)}$ C_{rss} Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching, HF Product.**用途 / Applications**

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.

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

PIN1 G

PIN 2 D

PIN 3 S

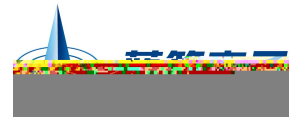
PIN 4 D

印章代码 / Marking

See Marking Instructions.

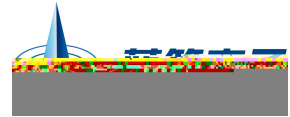
BRD65R650C

Rev.B May.-2022

**DATA SHEET**

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	$I_D(T_C=25^{\circ}C)$	8.5	A
Drain Current - Pulsed	I_{DM}	34	A
Gate-Source Voltage	V_{GS}	± 30	V
Single Pulsed Avalanche Energy	E_{AS}	108	mJ
Avalanche Current	I_{AS}	5	A
Power Dissipation	$P_D(T_C=25^{\circ}C)$	104	W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^{\circ}C$
Junction-to-Case	$R_{\theta JC}$	1.2	$^{\circ}C/W$
Junction-to-Ambient	$R_{\theta JA}$	55	$^{\circ}C/W$

Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=250\mu A$	2.5	3.2	4.0	V
Static Drain-Source On-Resistance		$V_{GS}=10V$	$I_D=3.5A$		580	650	$m\Omega$
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$	$I_{SD}=1A$				
		T					



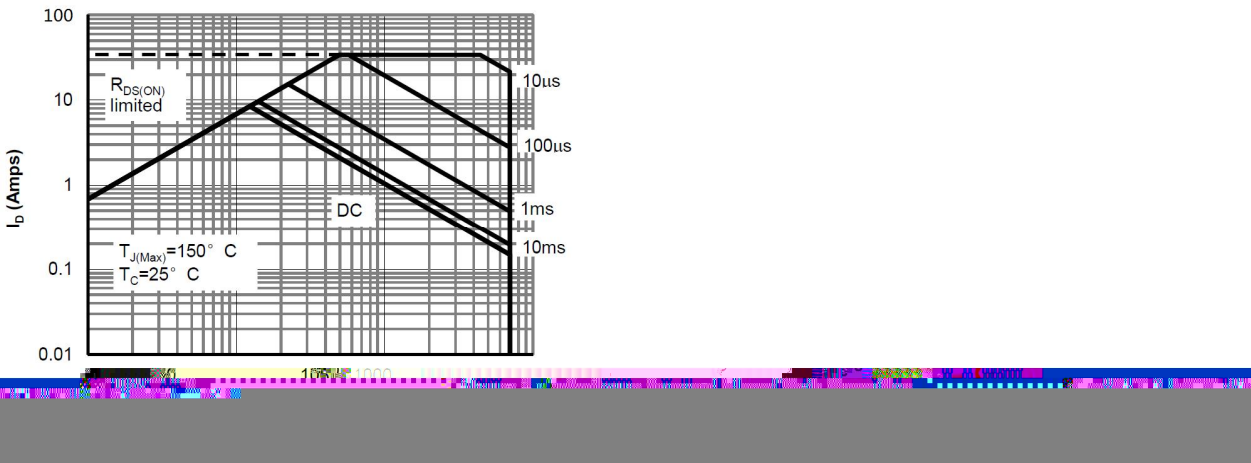
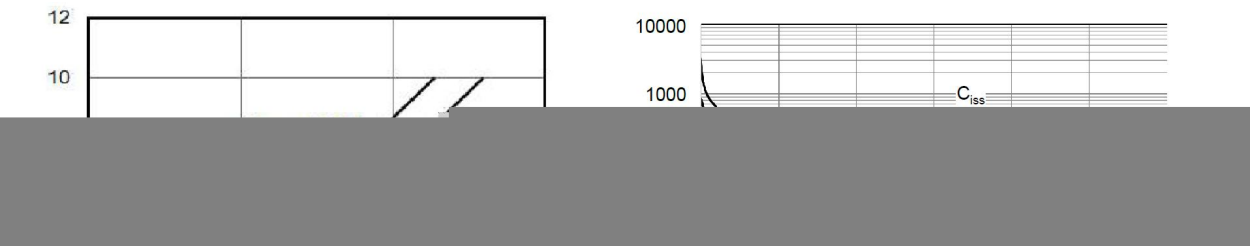
电性能参数 / Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Continuous Diode Forward Current	I_S				8.5	A
Total Gate Charge	Q_g	$V_{DS}=520V \quad I_D=3.5A$ $V_{GS}=10V$		13.3		nC
Gate-Source Charge	Q_{gs}			2.8		nC
Gate-Drain Charge	Q_{gd}			4.7		nC
Reverse recovery time	T_{rr}	$V_R=50V, I_F=3.5A,$ $dI_F/dt=100A/\mu s$		201		ns
Reverse recovery charge	Q_{rr}			1.3		uC

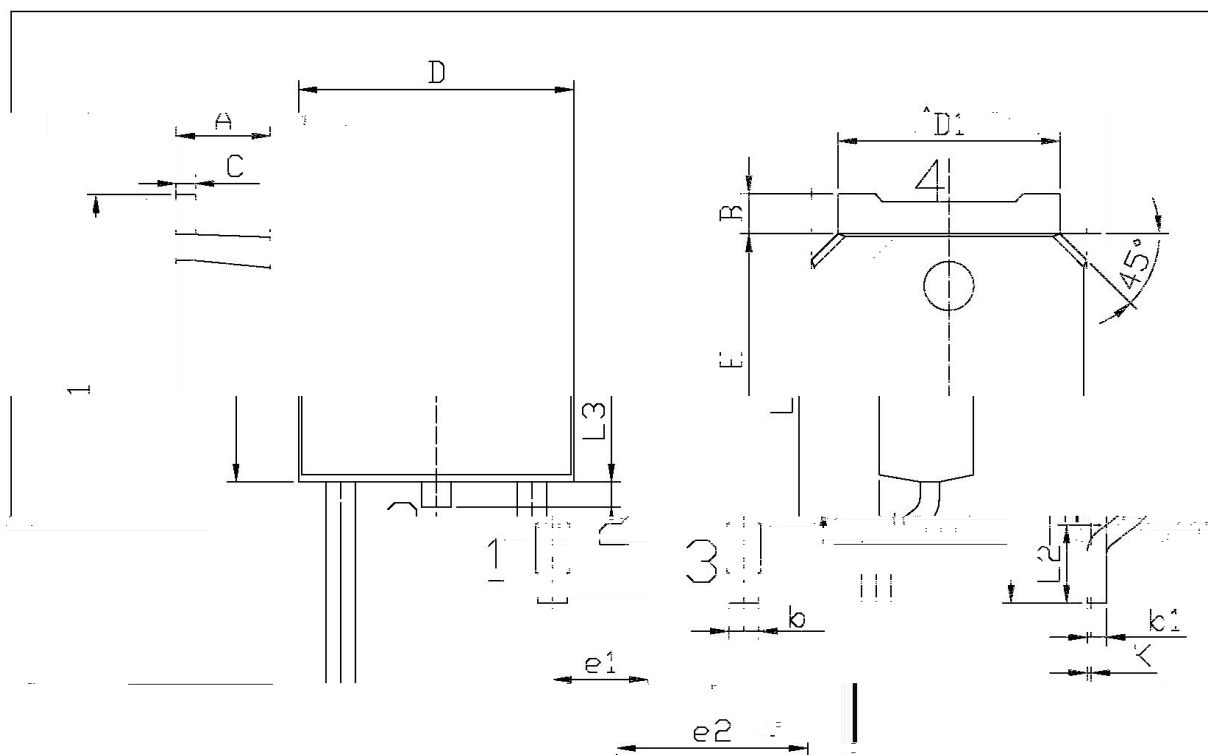
电参数曲线图 / Electrical Characteristic Curve



电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

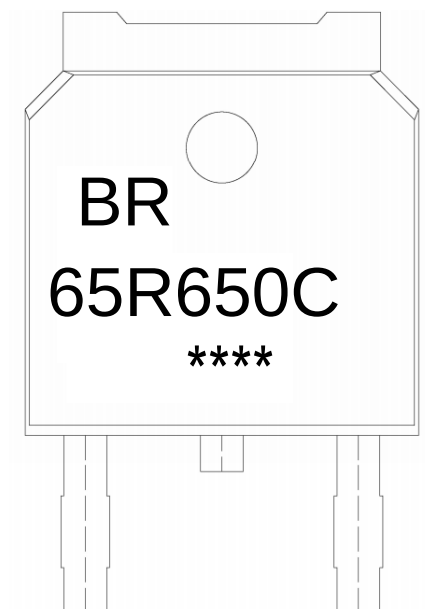


单位: mm

Figure 1 consists of two panels, (a) and (b), each displaying a series of DSC thermograms for polypropylene samples with varying water contents. The x-axis for both panels represents Temperature in degrees Celsius, ranging from 100 to 200. The y-axis represents Heat Flow in milliwatts (mW). Panel (a) shows samples with water contents from 0.00 to 1.00 wt% in increments of 0.05. Panel (b) shows samples with water contents from 0.00 to 1.00 wt% in increments of 0.05. The thermograms illustrate the melting behavior of the polypropylene, with the melting endotherm shifting to lower temperatures and broadening as the water content increases, indicating a decrease in crystallinity and the formation of a more amorphous phase.

TN-252

印章说明 / Marking Instructions



BR

65R650C

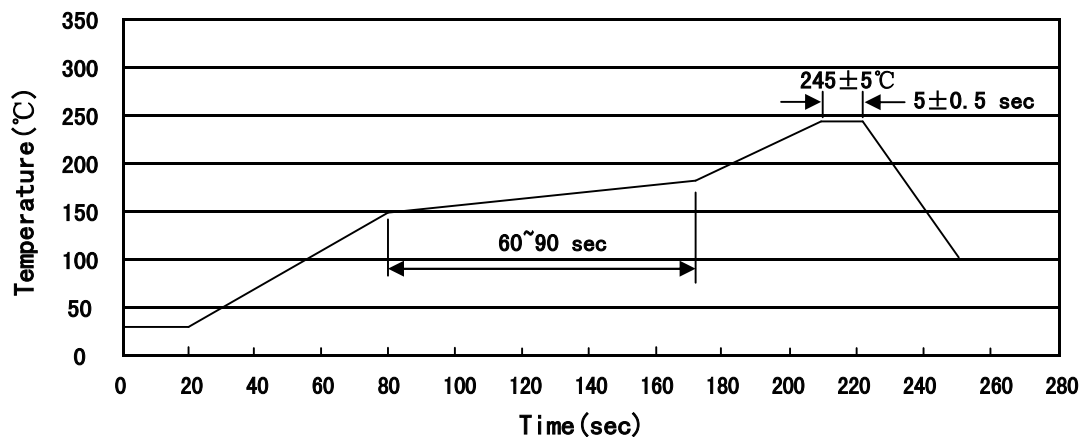
Note:

BR: Company Code

65R650C: Product Type Code

****: Lot No. Code, code change with Lot No

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

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

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

260±5°C

10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	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 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	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

使用说明 / Notices