

BRSC06650ZC

Rev.A Jun.-2024

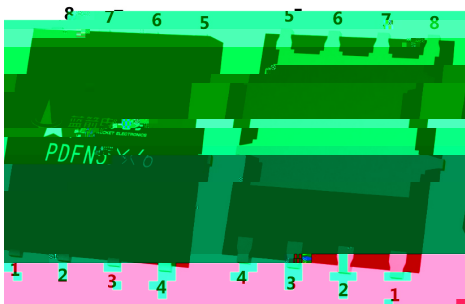
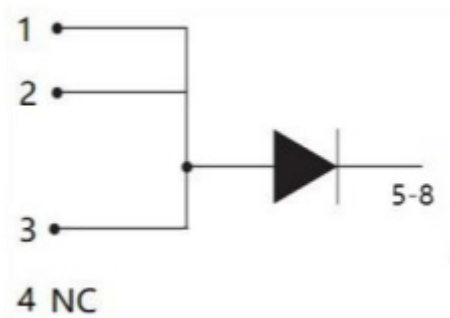
/ Descriptions

PDFN5² 6
SiC Schottky Barrier Diode in a PDFN5x6 Plastic Package.

/ Features

Low power loss, high efficiency, HF Product.

For high frequency, high voltage, high current rectifier diode, freewheeling diode



PIN 1,2,3 Anode PIN5-8 Cathode PIN 4 NC

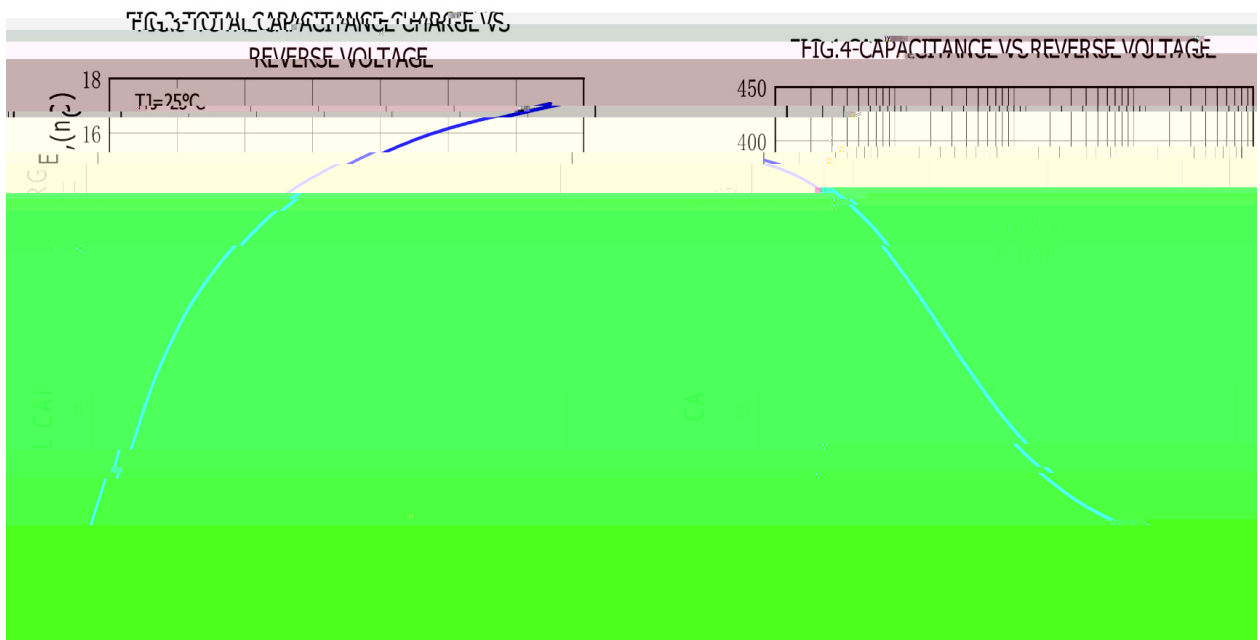
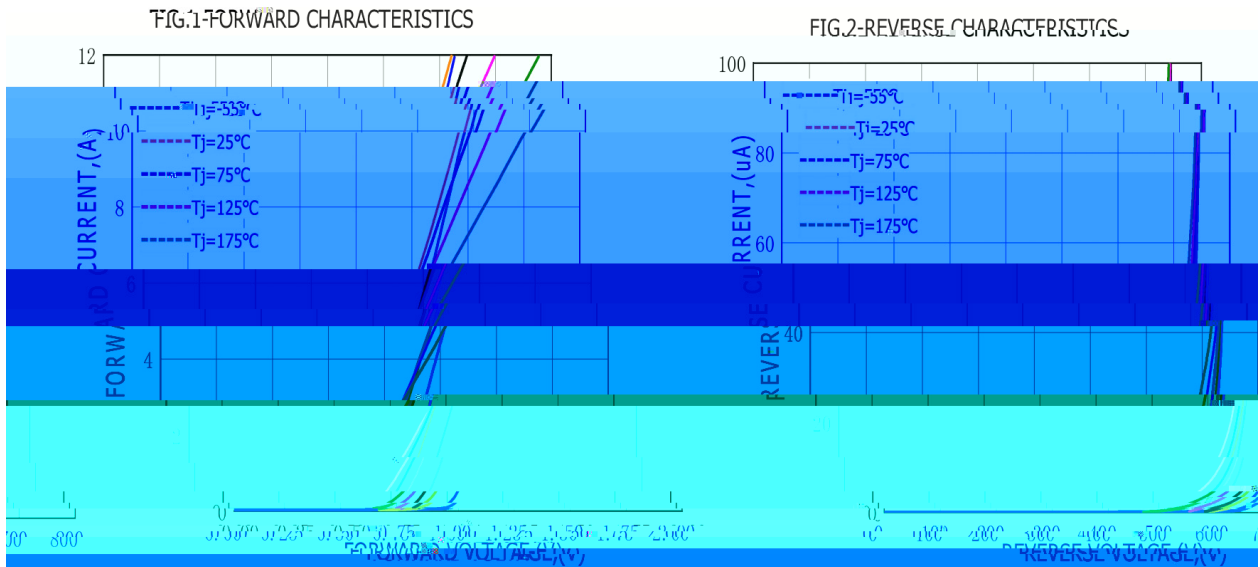
/ Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	650	V
Maximum RMS Voltage	V_{RMS}	455	V
Maximum DC blocking Voltage	V_{DC}	650	V
Continuous Forward Current, $T_C=150$	I_F	6	A
Peak forward surge current, $t_p=8.3ms$	I_{FSM}	52	A
Total power dissipation	P_D	53	W
Typical Thermal Resistance Junction to Case	R _{JC}	2.8	/W
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55~+175	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R		650	-	-	V
Forward Voltage	V_F	$I_F=6A$ $T_C=25$	-	1.27	1.5	
		$I_F=6A$ $T_C=175$	-	1.38	1.6	
Instantaneous Reverse Current	I_R Note 1	$V_R=650V$ $T_a=25$	-	4	50	μA
		$V_R=650V$ $T_a=175$	-	200	200	
Total capacitive charge	Q_C	$V_R =650V, I_F =6A$ $di/dt = 200A/\mu s$	-	17	-	nC

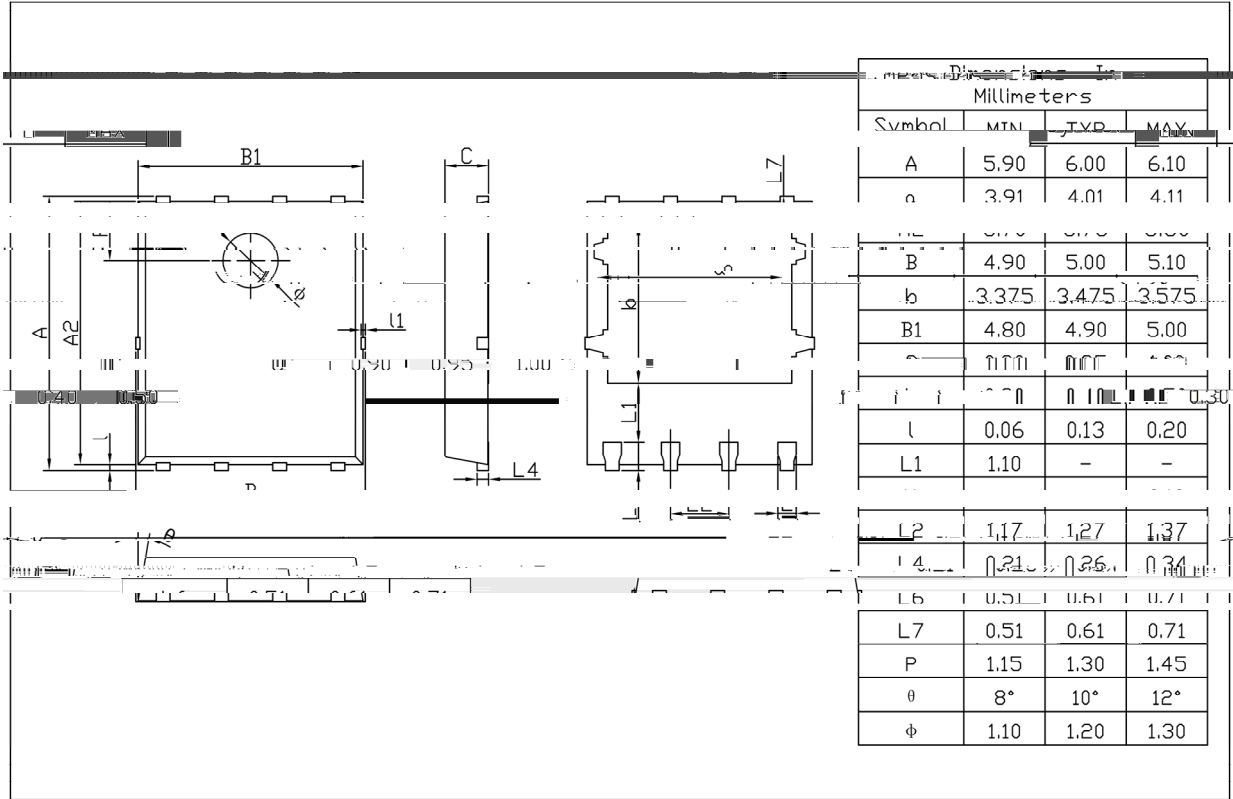
/ Electrical Characteristic Curve



/ Package Dimensions

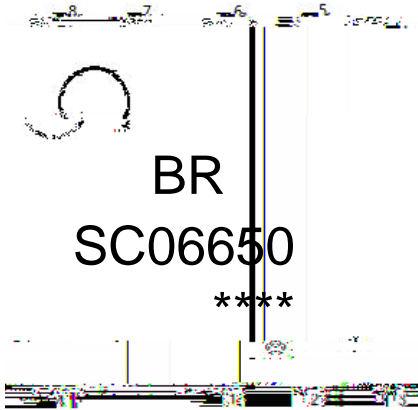
PDFN5 X6

Unit:mm



Rev.01 202209

/ Marking Instructions



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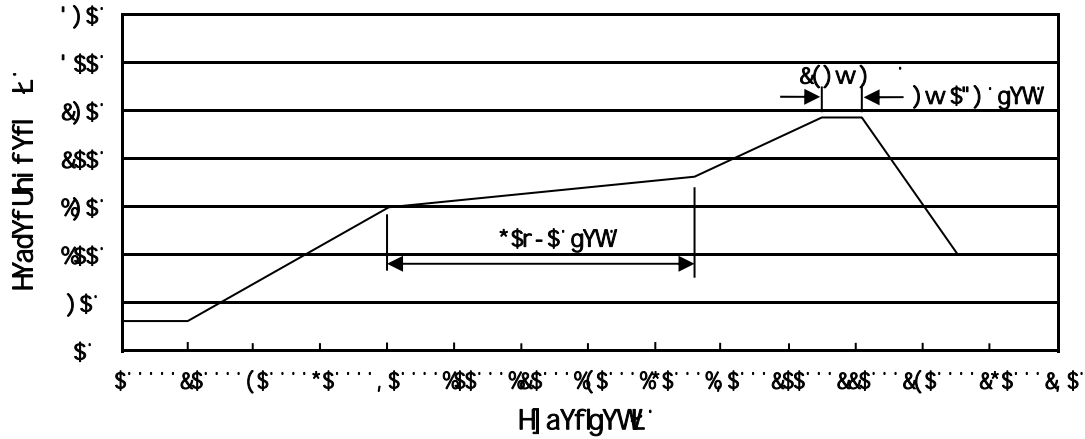
Note

BR Company Code

SC06650 Product Type Code

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

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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 mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
PDFN5x6	5,000	2	10,000	6	60,000	13"x12	360x360x50	380x335x366

/ Notices