

/ Descriptions

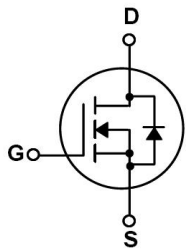
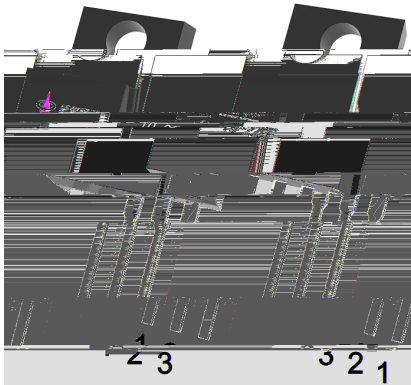
TO-220F SiC N MOS

SiC N-CHANNEL MOSFET in a TO-220F Plastic Package.

/ Features $V_{DS}=800V$ $I_D=8.8A$ $R_{DS(on)}@15V \leq 568m\Omega$ (Type. 437m Ω) $R_{DS(on)}@18V \leq 480m\Omega$ (Type. 316m Ω)**/ Applications**

LED PD PC

LED driver, PD charger, PC adapter, Air-conditioning, E-bike charger.

/ Equivalent Circuit**/ Pinning**

PIN1 G

PIN 2 D

PIN 3 S

/ Marking

See Marking Instructions.

BRSC80R480ZFA

Rev.B Jul.-2026



DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	800	V
Continuous DC Drain Current for $R_{th(j-c,typ.)}$, Limited by $T_{VJ(max)}$	$I_D(T_c=25^\circ C)$	8.8	A
	$I_D(T_c=100^\circ C)$	6.8	A
Peak Drain Current, t_p Limited by $T_{VJ(max)}$	I_{DM}		

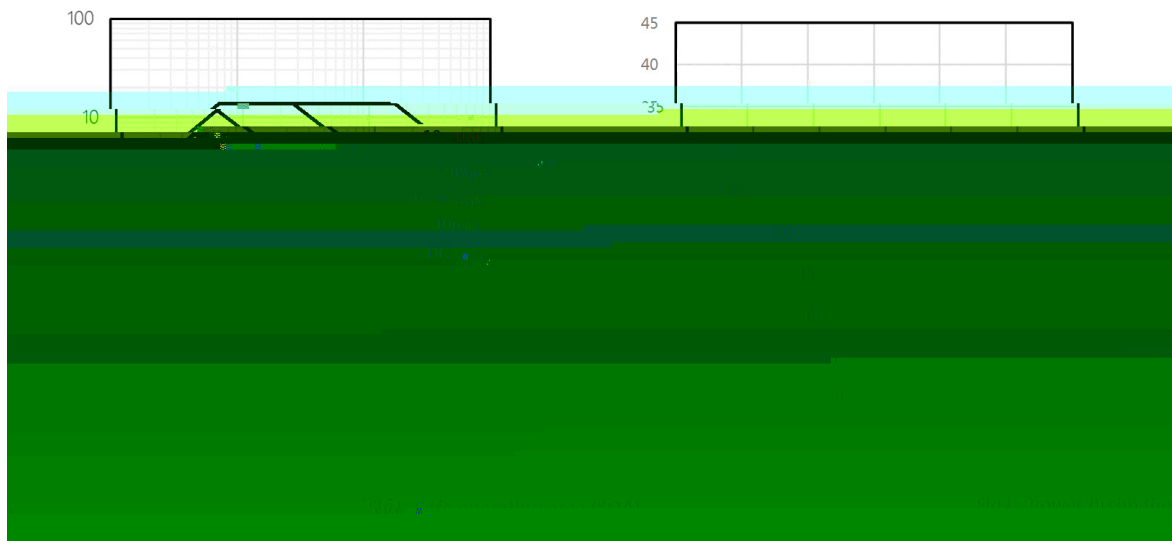
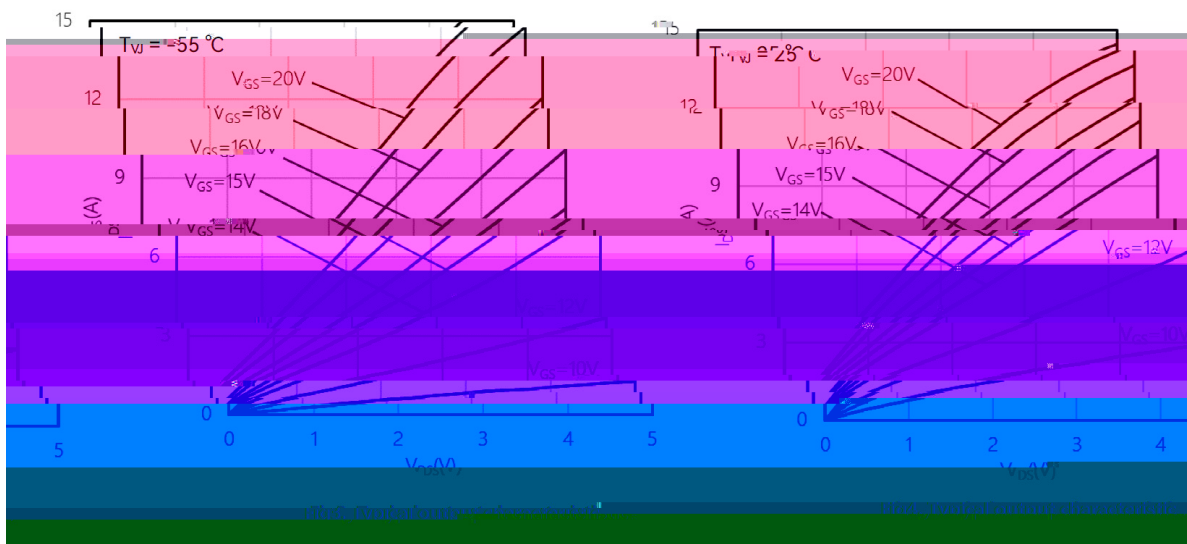
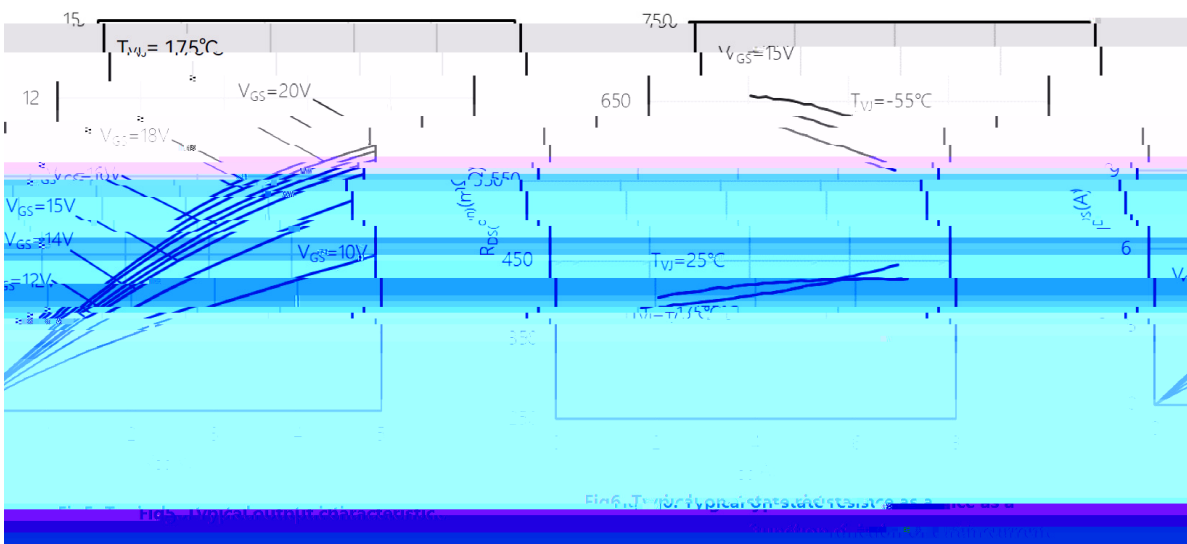
Rev.B Jul.-2026



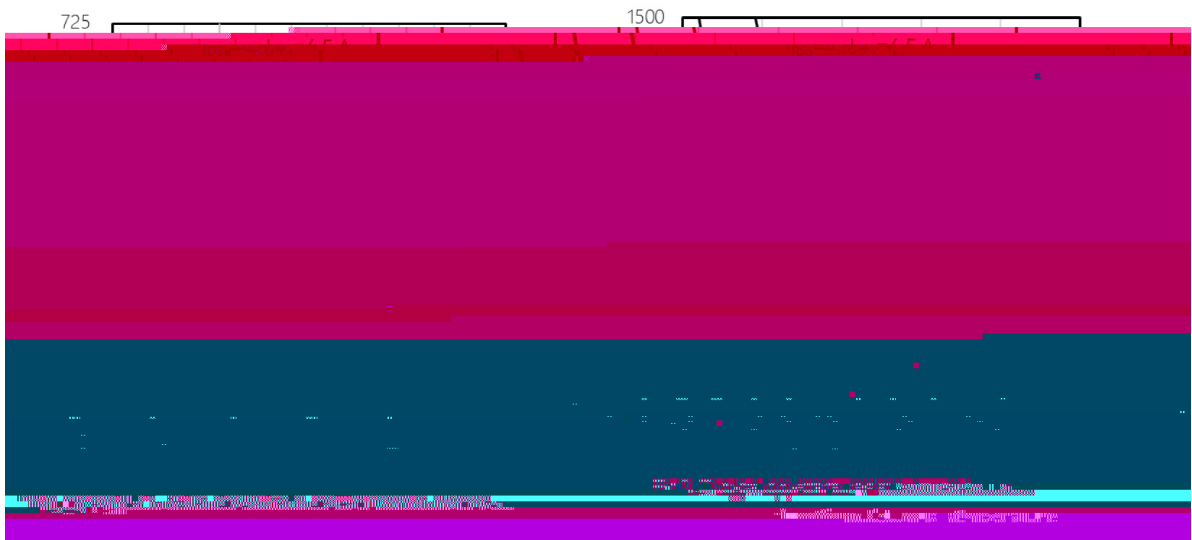
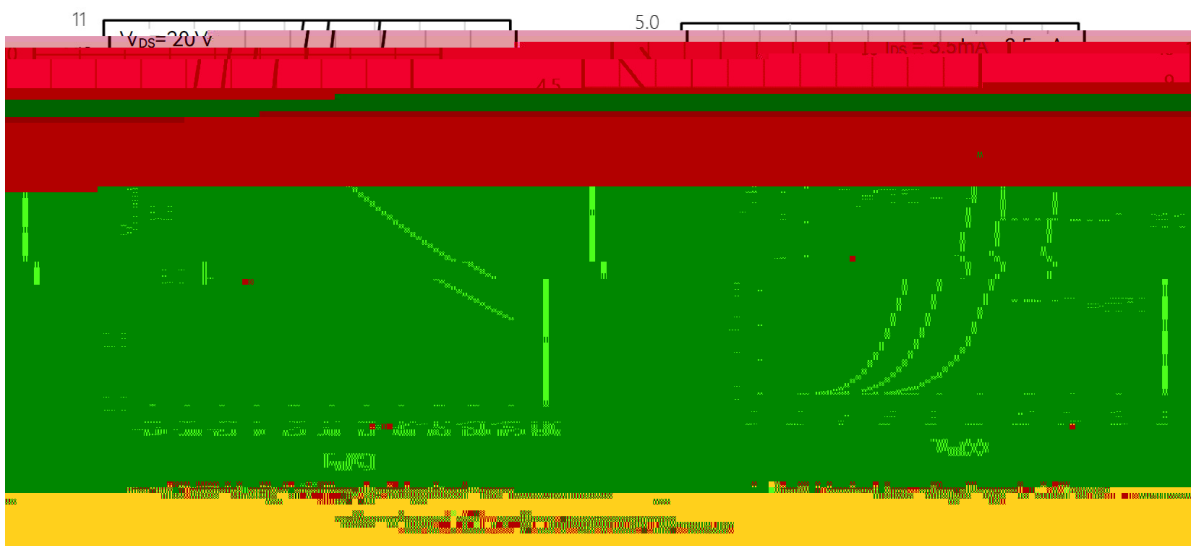
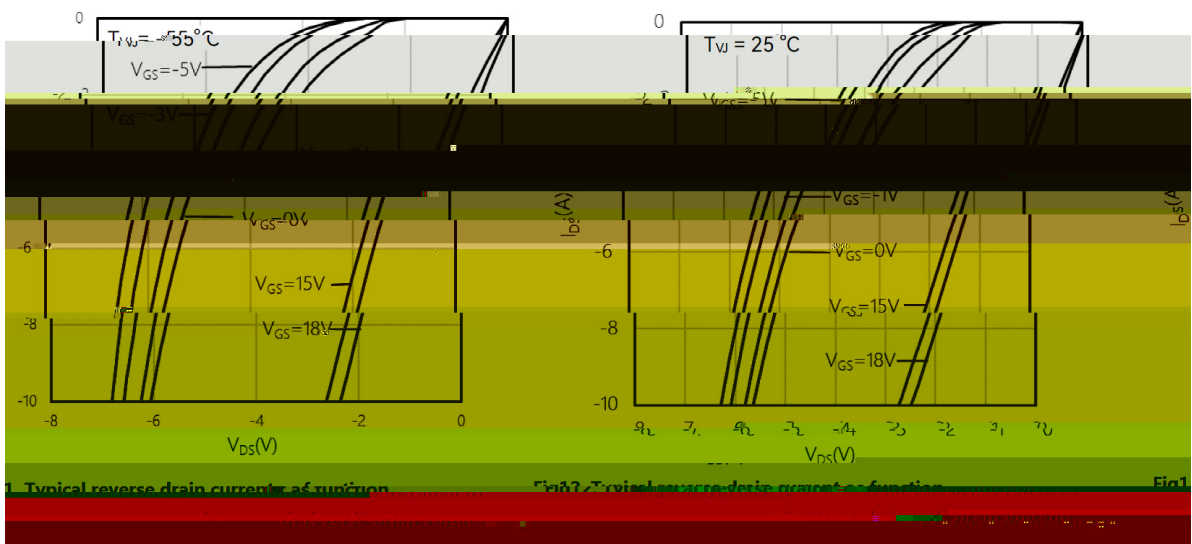
DATA SHEET

http://www.fsbrec.com						3 / 11
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/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

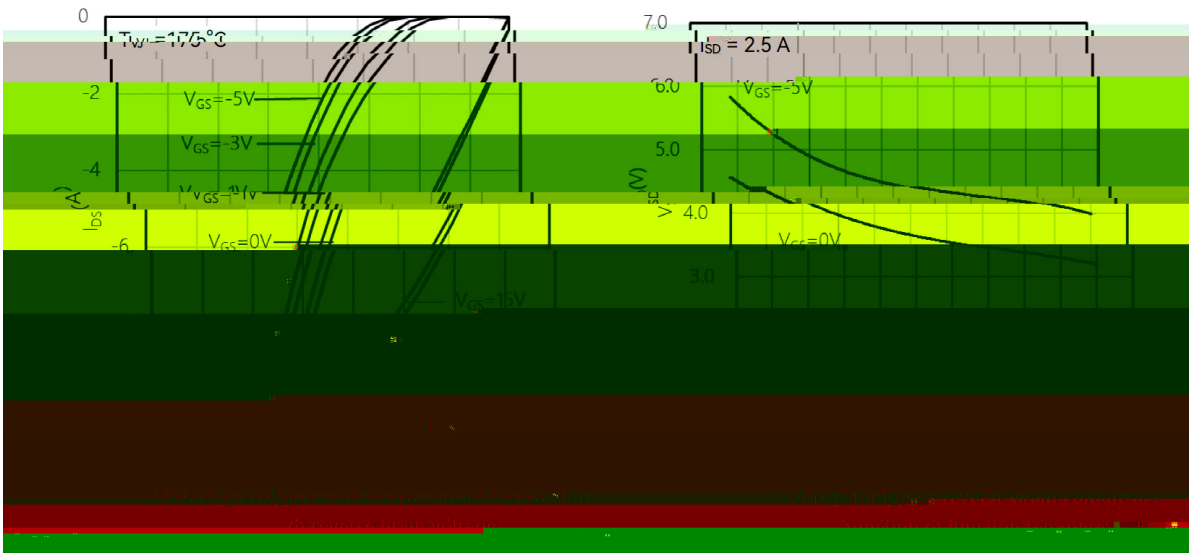
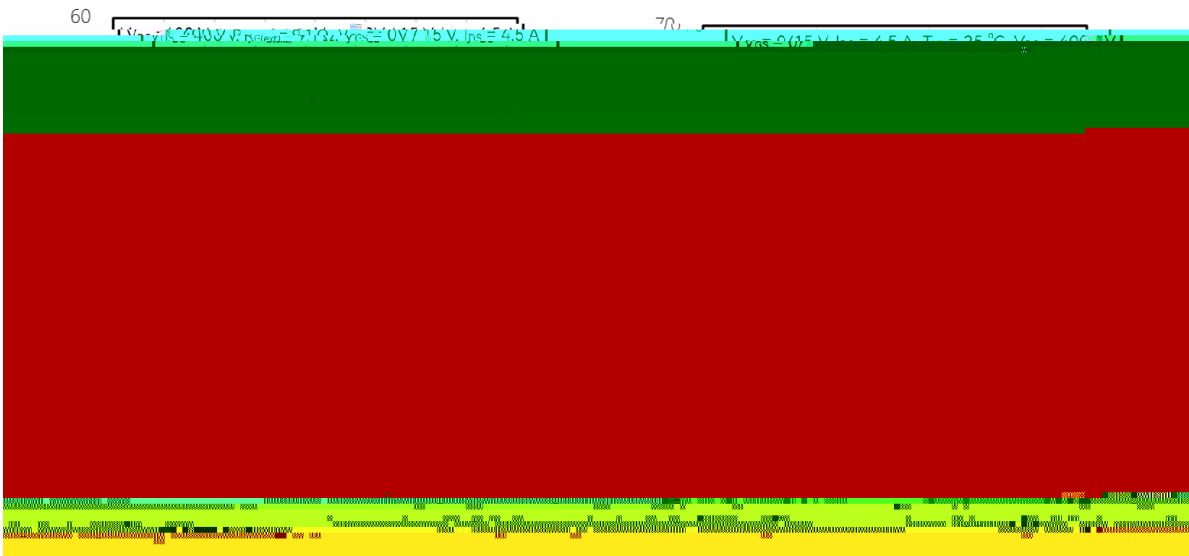


Fig17. Typical switching energy losses as a function of I_{DS} . 2nd device own body diode: $V_{\text{GS}} = 0\text{V}$.

Fig18. Typical switching energy losses as a function of I_{DS} . 2nd device own body diode: $V_{\text{GS}} = 0\text{V}$.

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/ Electrical Characteristic Curve

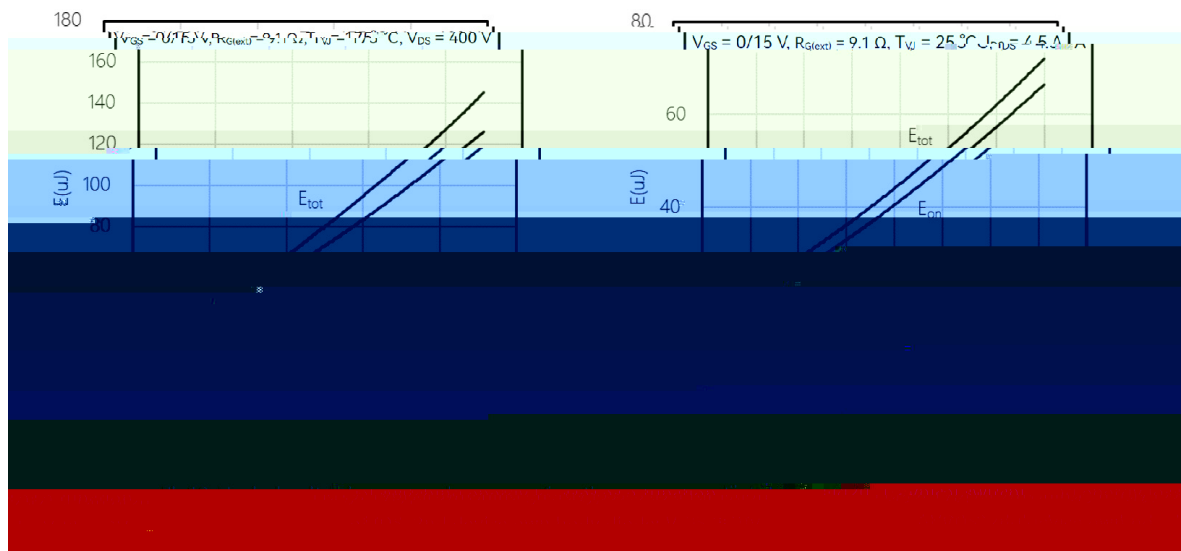
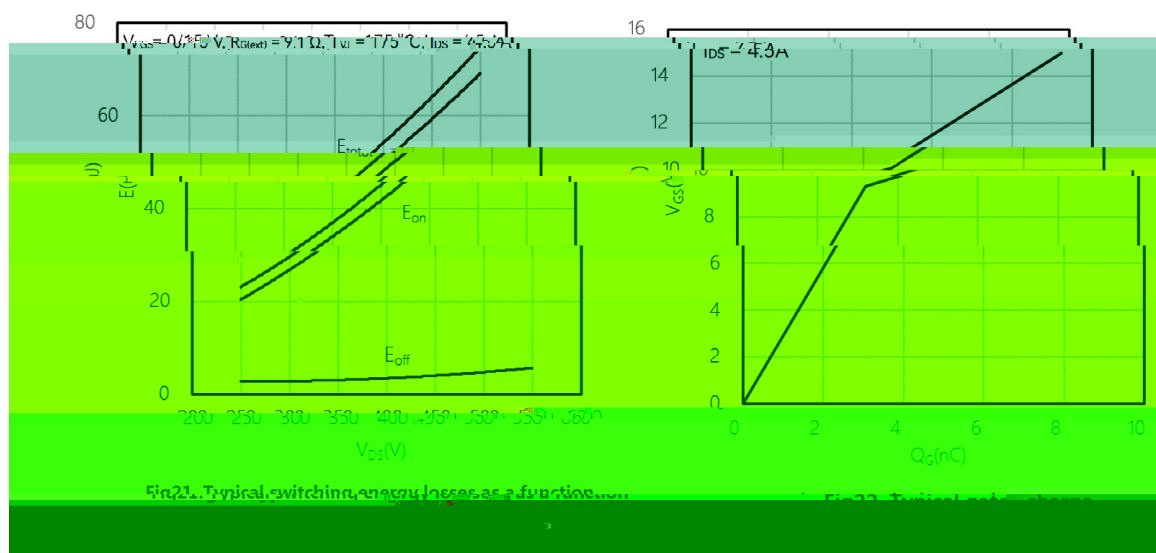
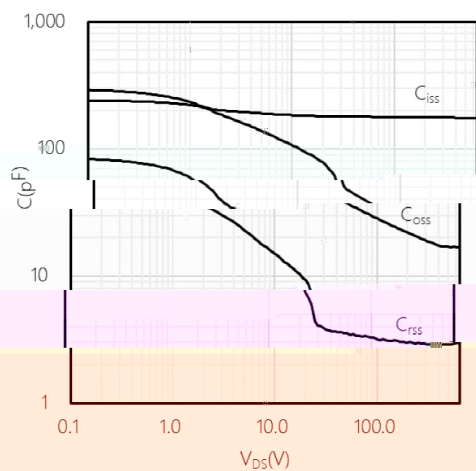
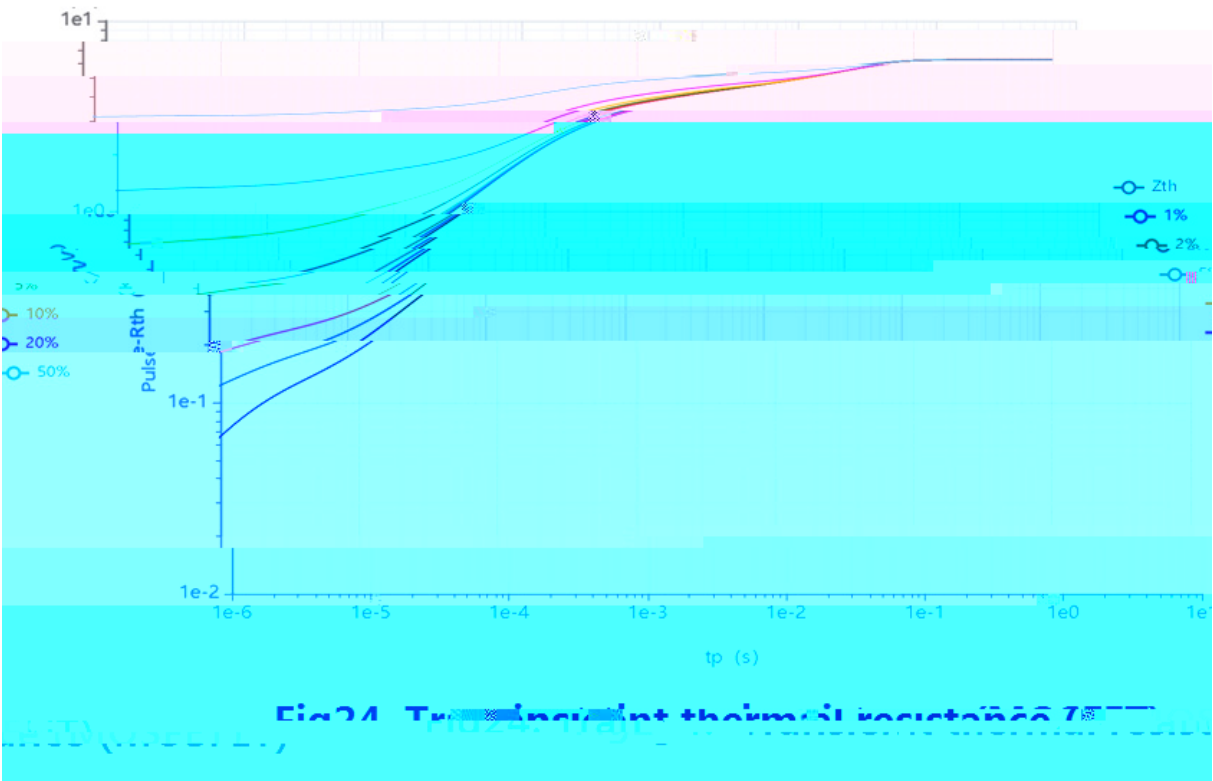
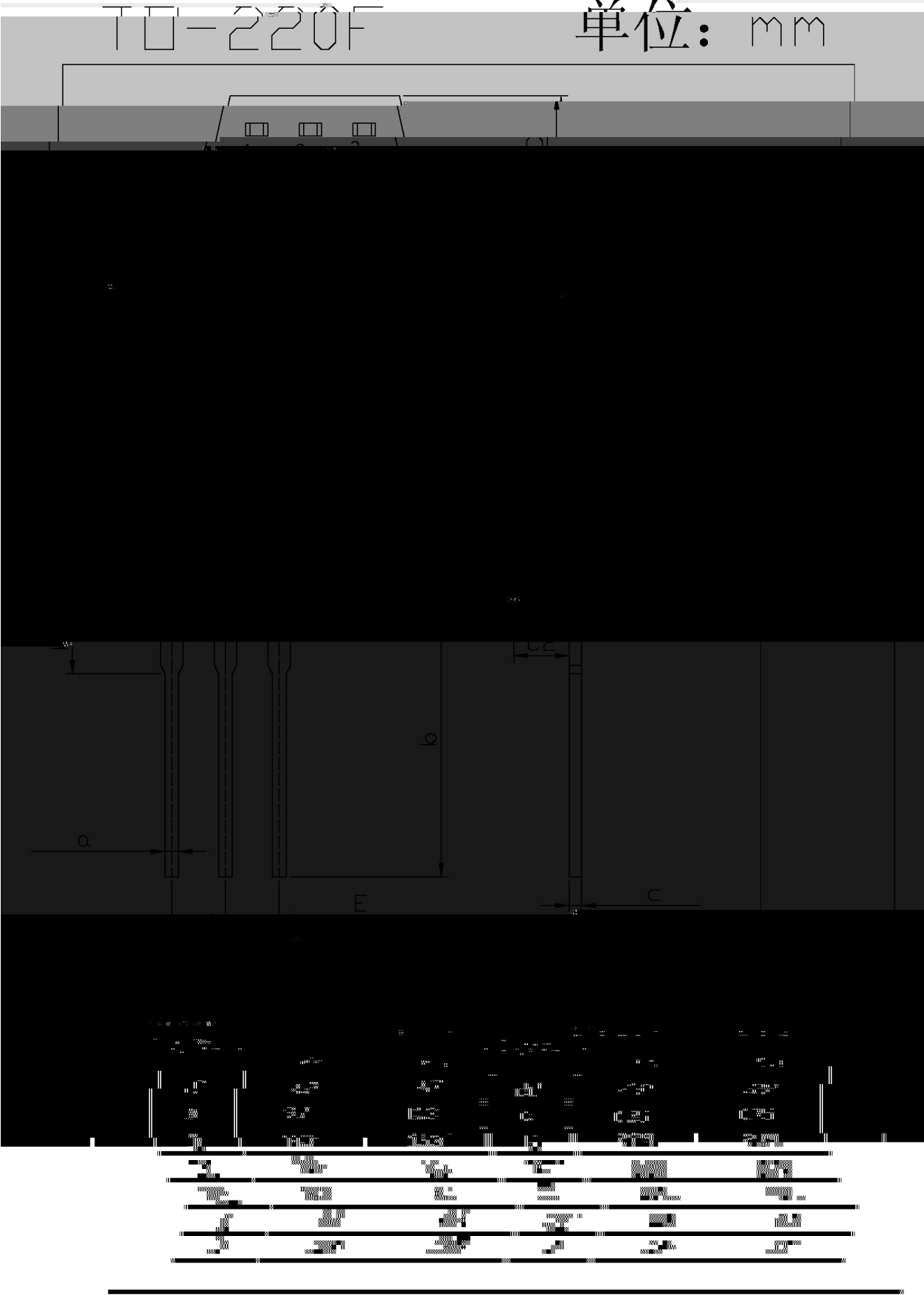


Fig23. Typical capacitance as a function of V_{DS}

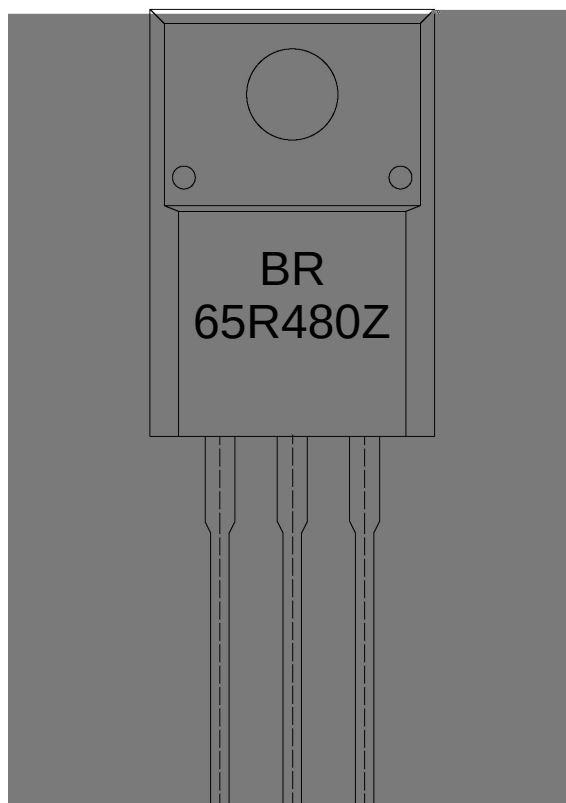
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

65R480Z

SC

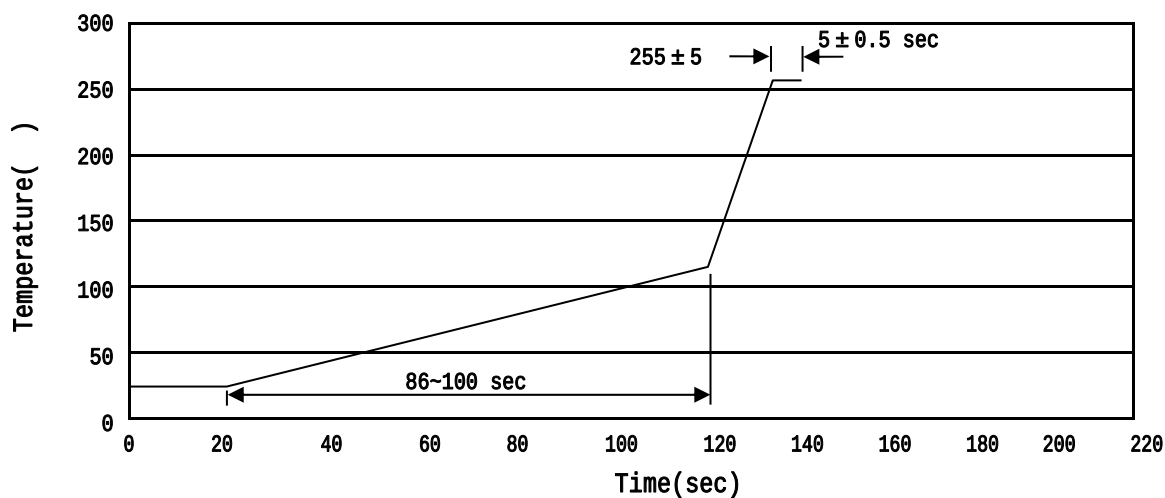
Note:

BR: Company Code

65R480Z: Product Type Code

SC: SiC

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

() / Temperature Profile for Dip Soldering(Pb-Free)


Note:

- | | | | | | |
|---|-------|-----|-----------|--------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 | | 5±0.5sec; | | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ In-line Package Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.
/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ 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-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices

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