

Rev.C Jul.-2026

TO-220F SiC N MOS

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

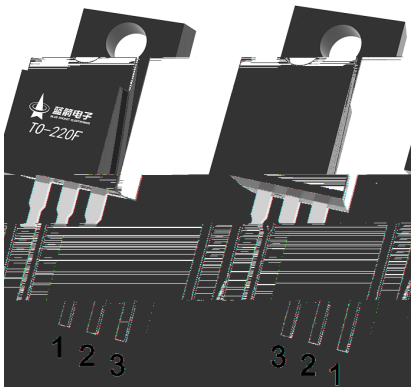
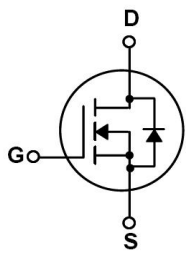
$V_{DS}=650V$ $I_D=15.4A$

$R_{DS(on)}@15V \leq 280m\Omega$ (Type.215m Ω)

$R_{DS(on)}@18V \leq 260m\Omega$ (Type.176m Ω)

LED PD PC

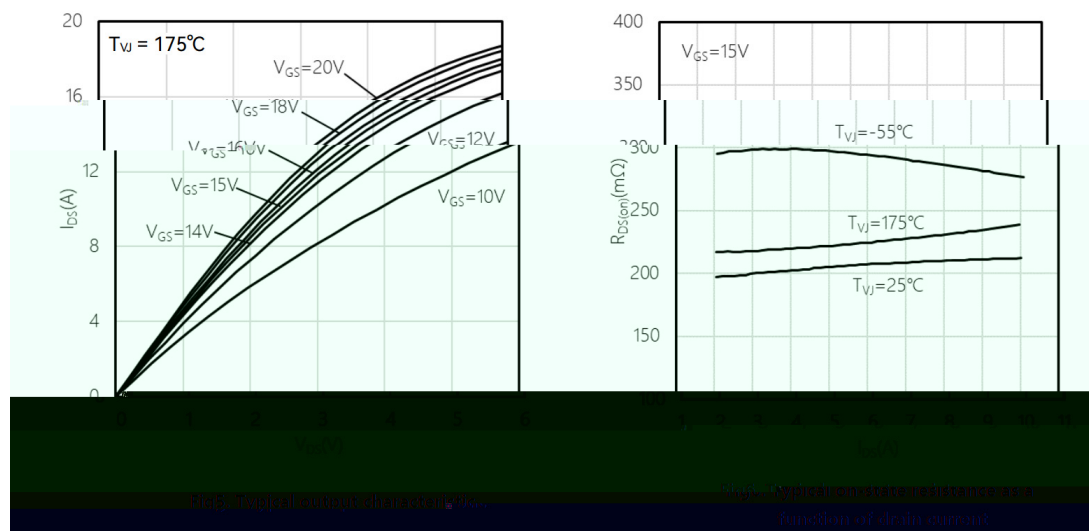
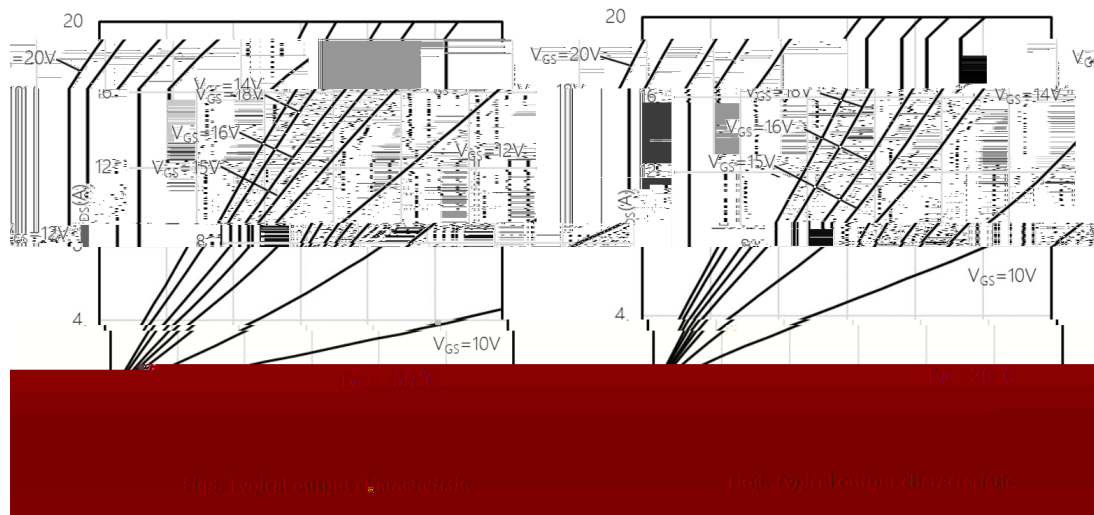
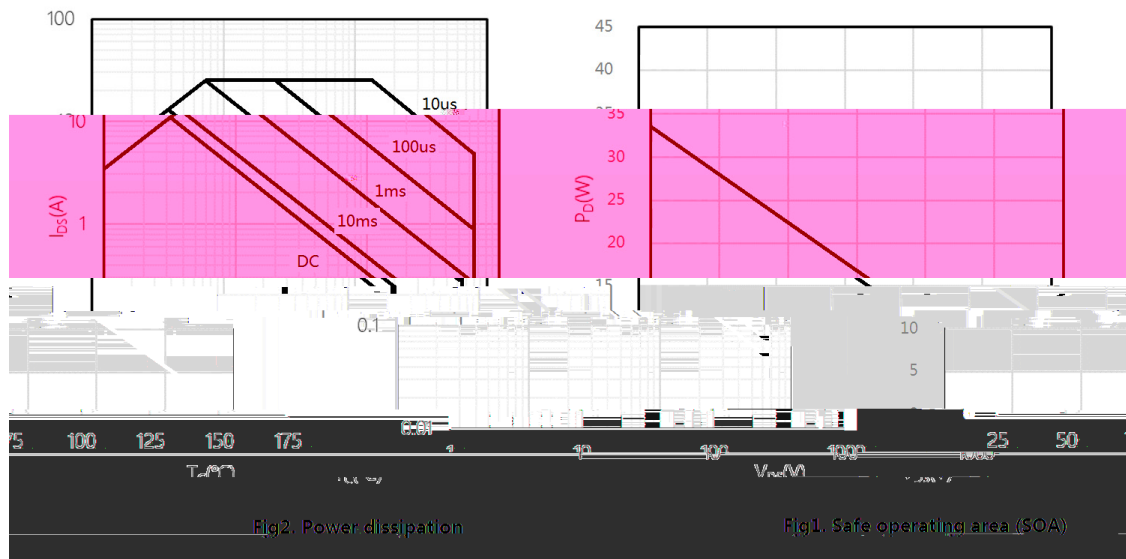
LED driver, PD charger, PC adapter, Air-conditioning, E-bike charger.



PIN1 G PIN 2 D PIN 3 S

See Marking Instructions.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=0/15V$ $L=600\mu H$ $V_{DD}=400V$ $I_D=8A$ $R_g=4.3\Omega$		20.4		ns
Turn-On Rise Time	t_r			11.9		
Turn-Off Delay Time	$t_{d(off)}$			17.2		
Turn-Off Fall Time	t_f			11.7		
Turn-On Switching Loss	E_{on}			79.2		μJ
Turn-Off Switching Loss	E_{off}			13.3		
Total Switching Energy	E_{tot}			92.5		
Gate resistance	R_g	$V_{AC}=25mV$ $f=1MHz$		23		Ω
Input Capacitance	C_{iss}	$V_{DS}=400V$ $V_{GS}=0V$ $f=1MHz$		289		pF
Output Capacitance	C_{oss}			23		
Reverse Transfer Capacitance	C_{rss}			2.1		
Total Gate Charge	Q_g	$V_{GS}=0/15V,$ $V_{DS}=400V,$ $I_D=10A$		12.5		nC
Gate Source Charge	Q_{gs}			4.5		
Gate Drain Charge	Q_{gd}			1.5		



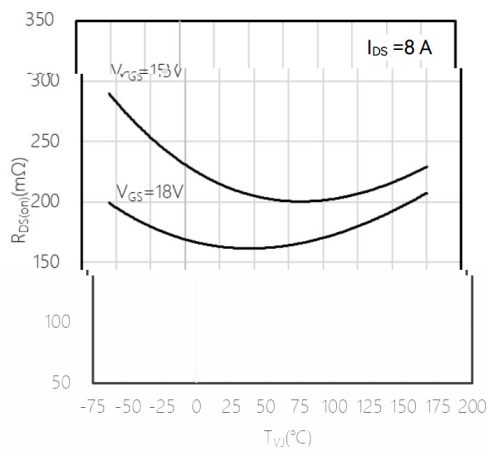


Fig. 7. Typical on-state resistance as a function of temperature

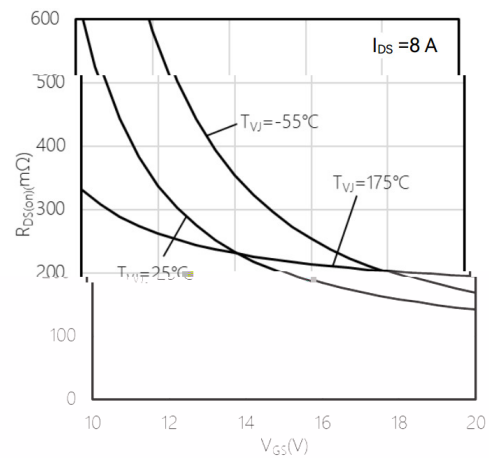


Fig. 8. Typical on-state resistance as a function of V_{GS}

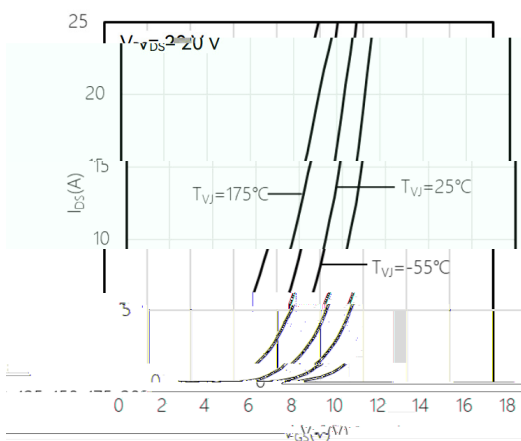


Fig. 9. Typical transfer characteristic

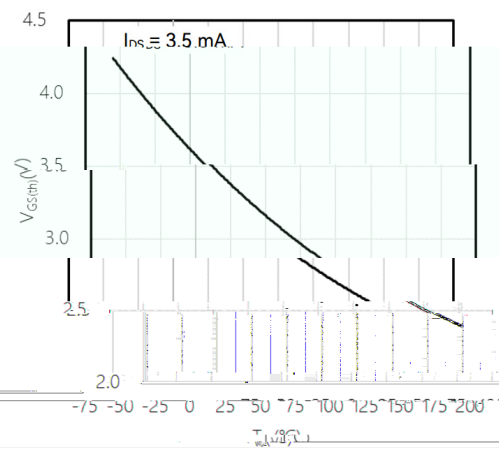


Fig. 10. Typical gate-source threshold voltage as a function of junction temperature

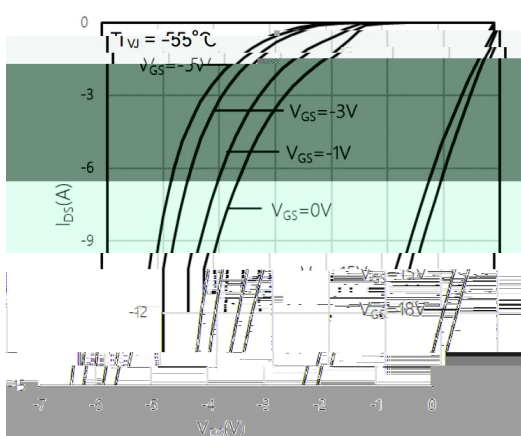


Fig. 11. Typical reverse drain current as function of reverse drain voltage

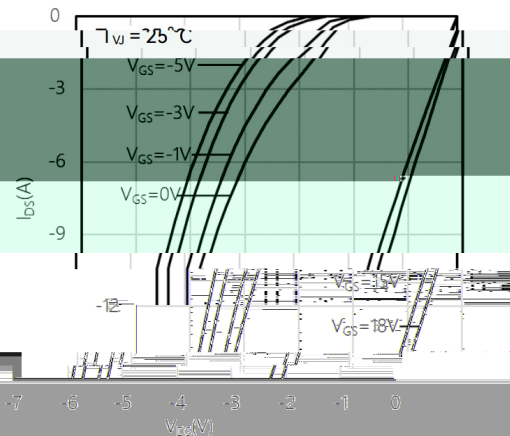
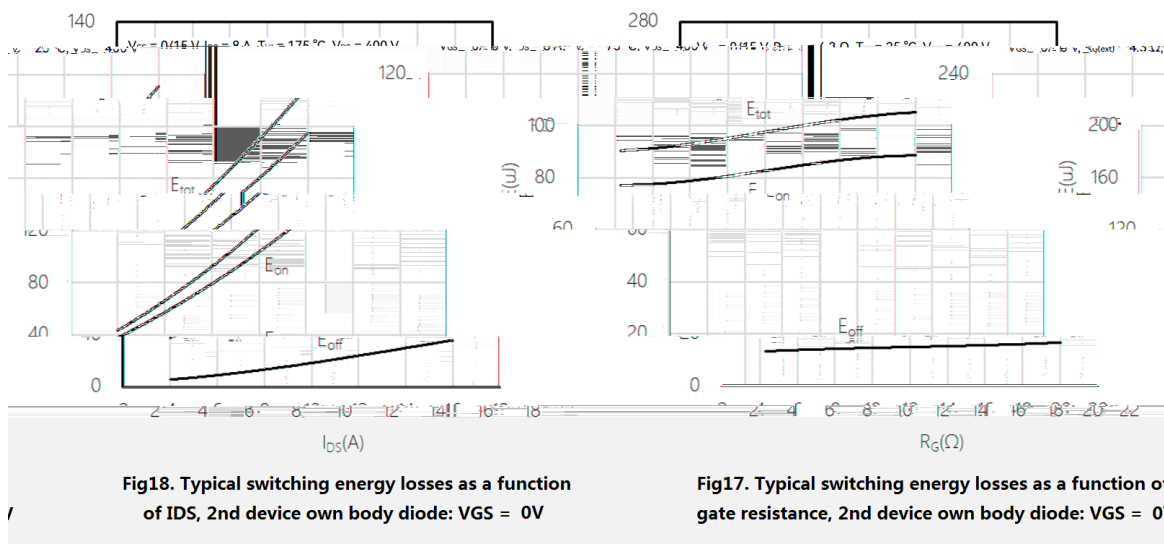
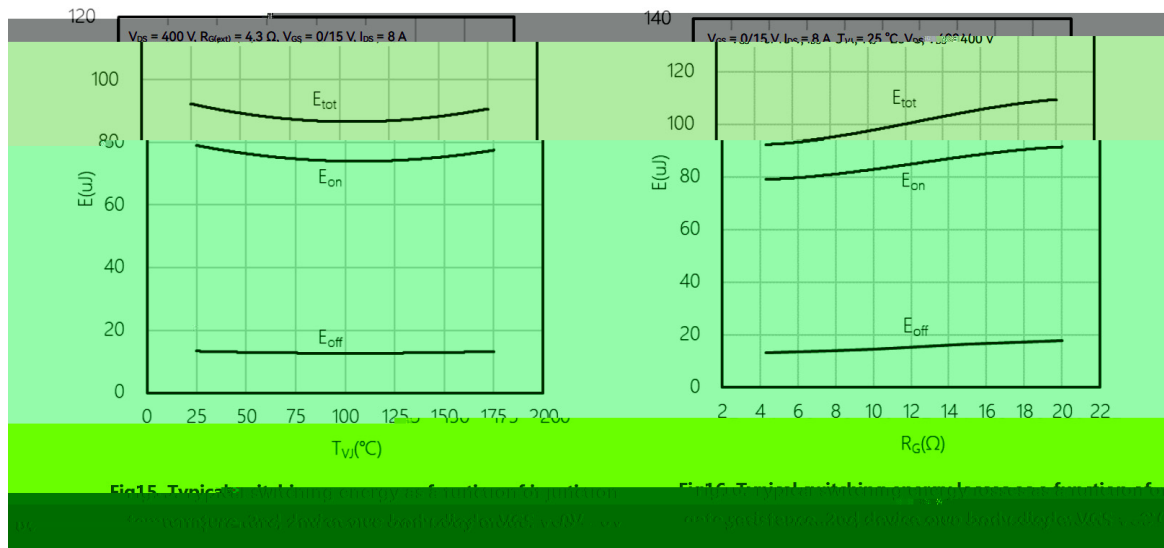
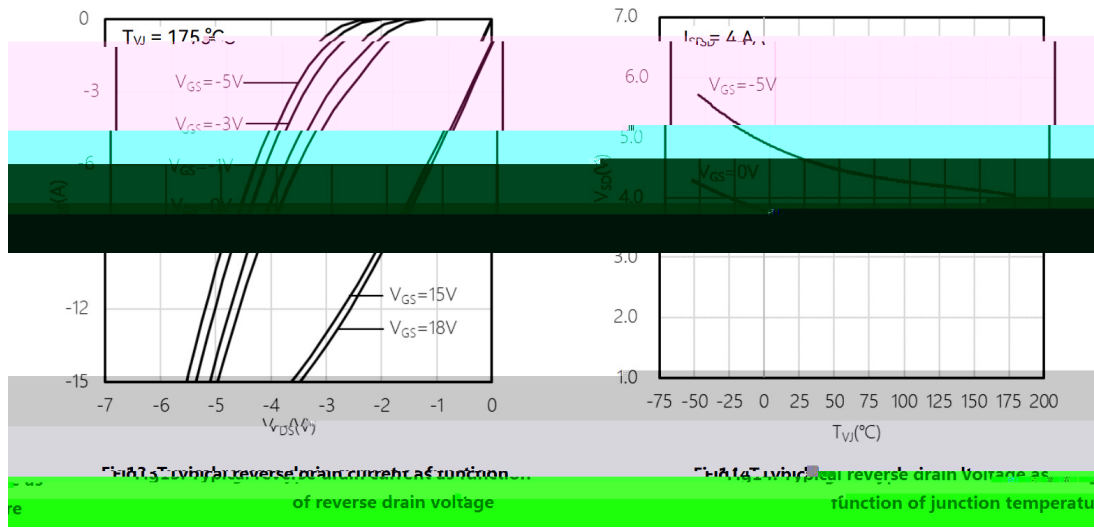
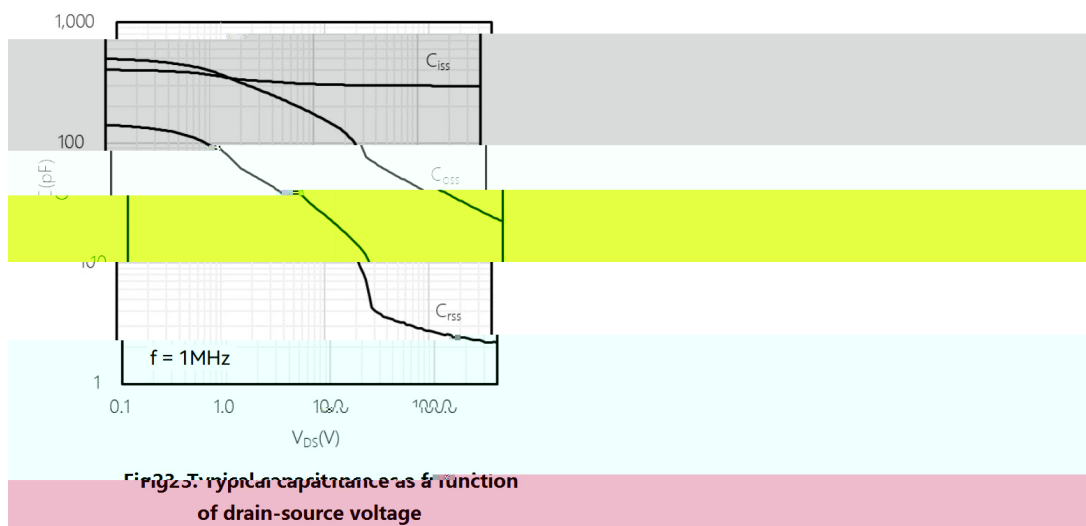
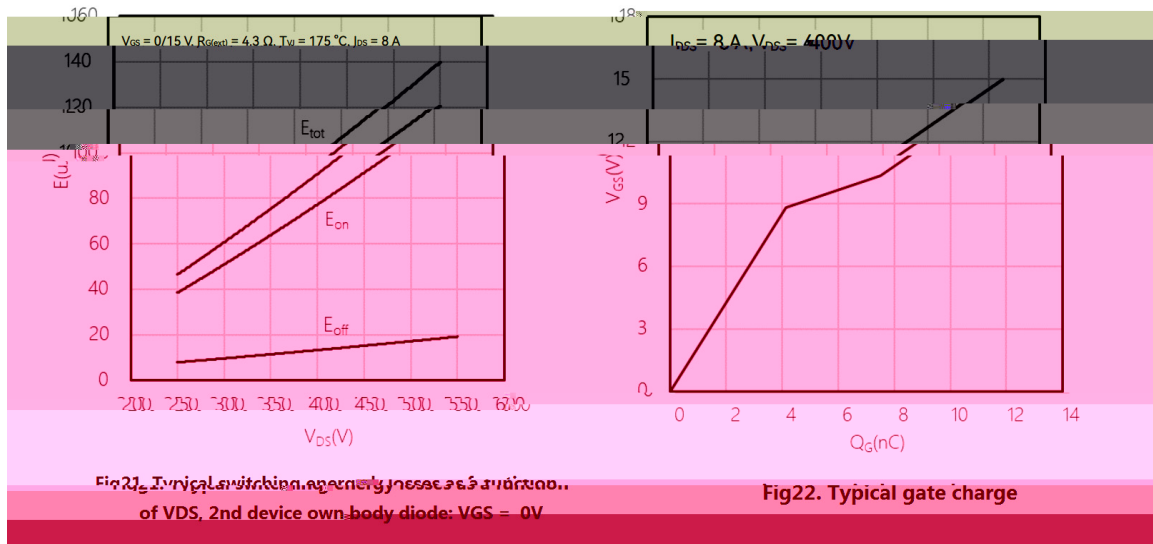
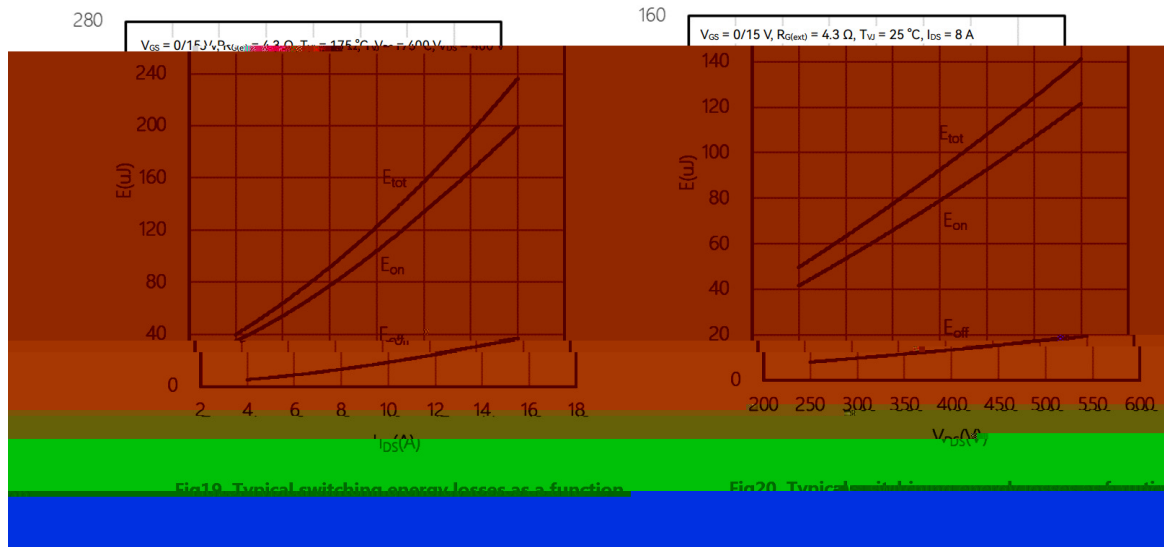
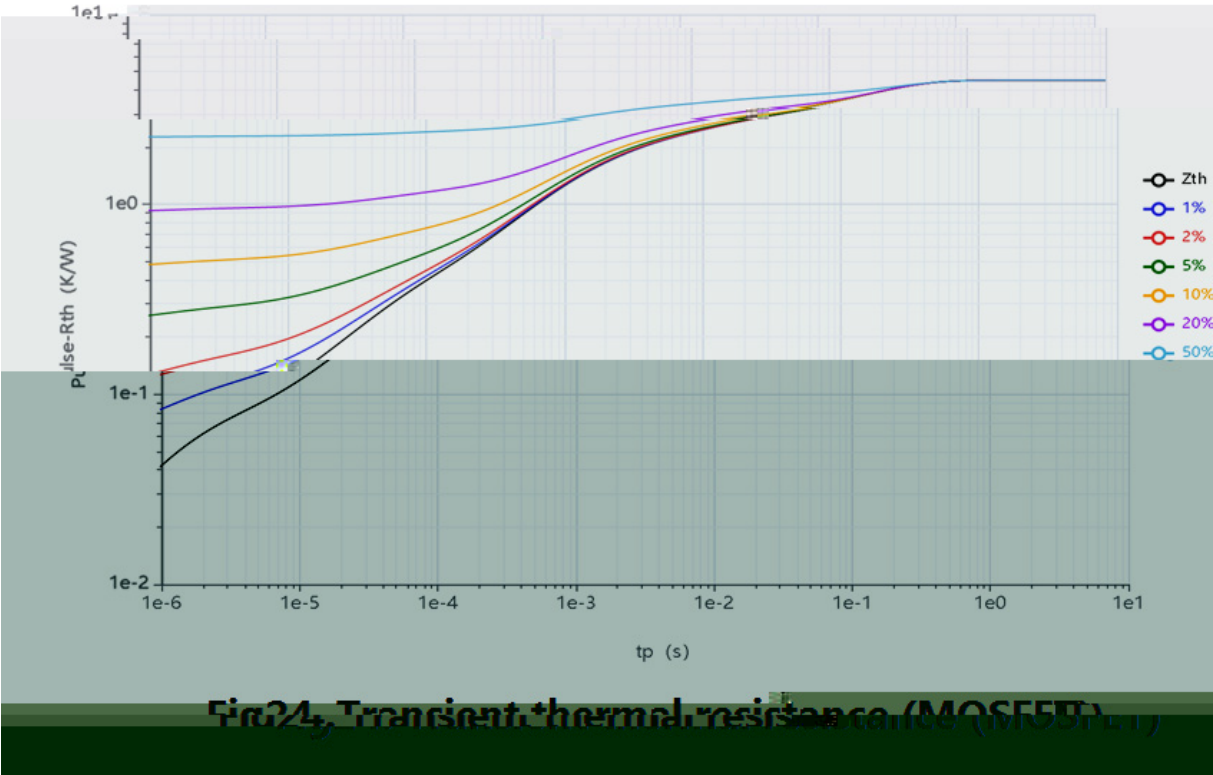


Fig. 12. Typical reverse drain current as function of reverse drain voltage

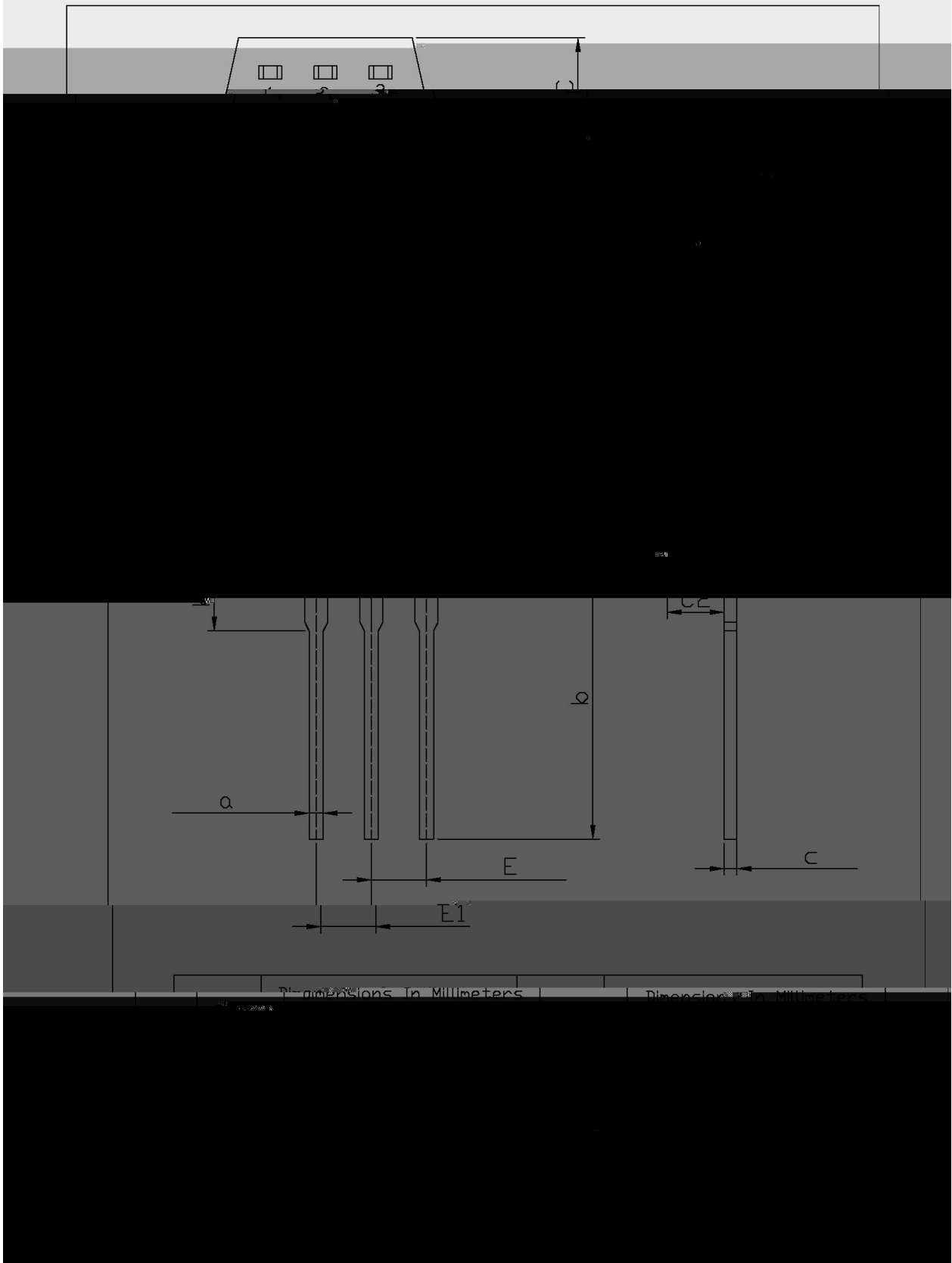


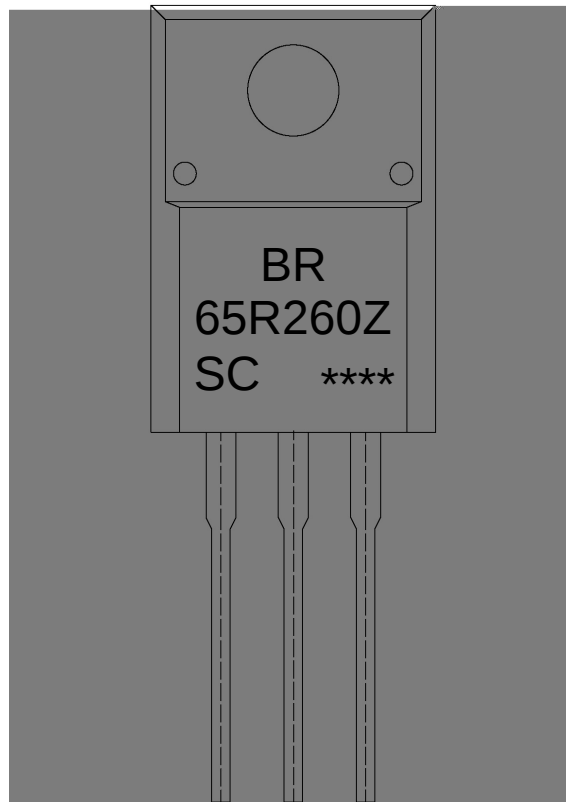




T0-220F

单位: mm





BR

65R260Z

SC

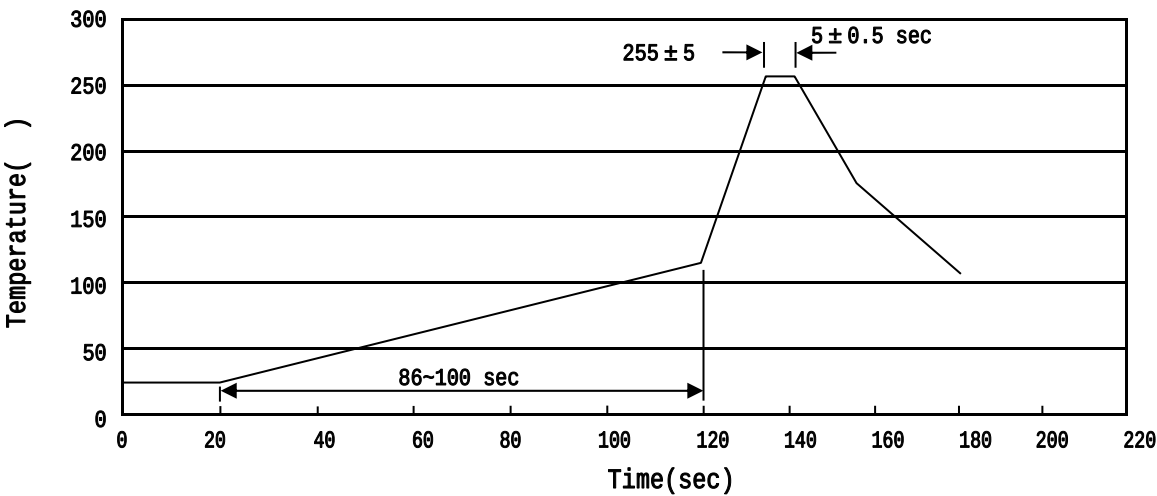
Note:

BR: Company Code

65R260Z: Product Type Code

SC: SiC

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



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.

270±5

10±1 sec.

Temp.:270±5

Time:10±1 sec

/ 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

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