

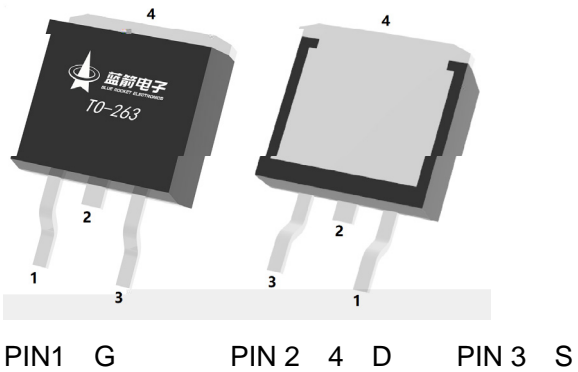
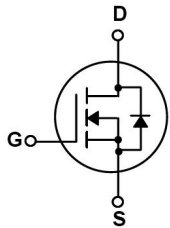
Rev.A Sep.-2022

TO-263 N
N-CHANNEL MOSFET in a TO-263 Plastic Package.

Ultra Low On-Resistance,fast switching,HF product.

LED

Boost converters and synchronous rectifiers for consumer, telecom, industrial power supplies and LED backlighting.

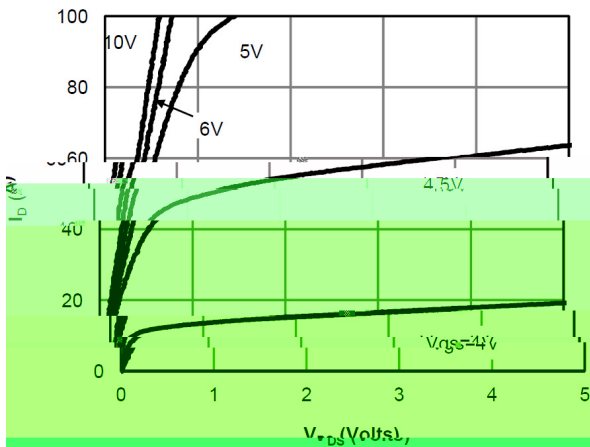
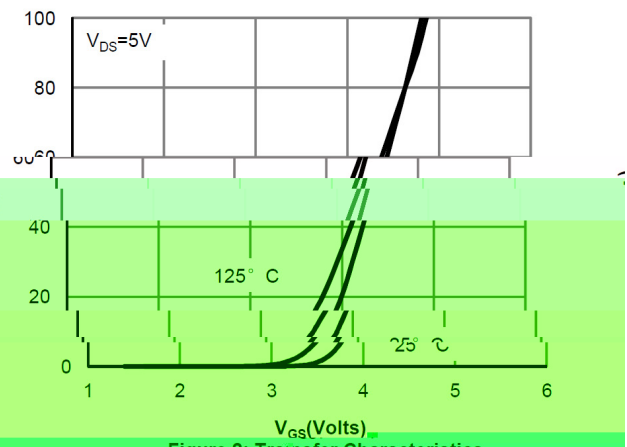
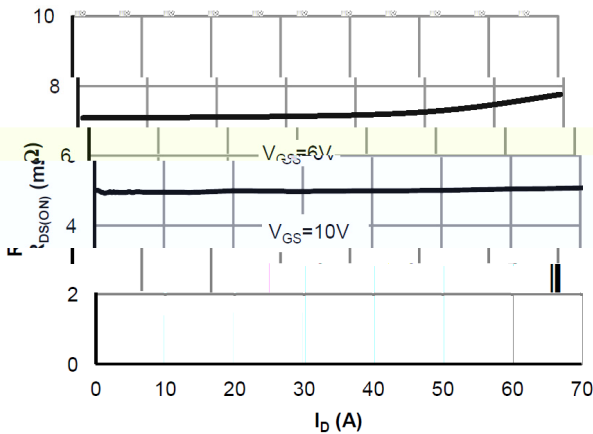
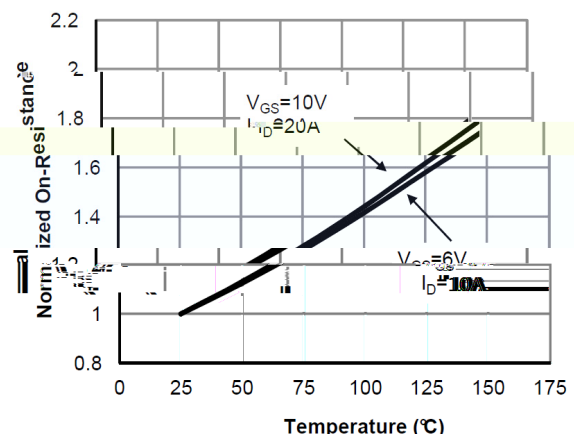
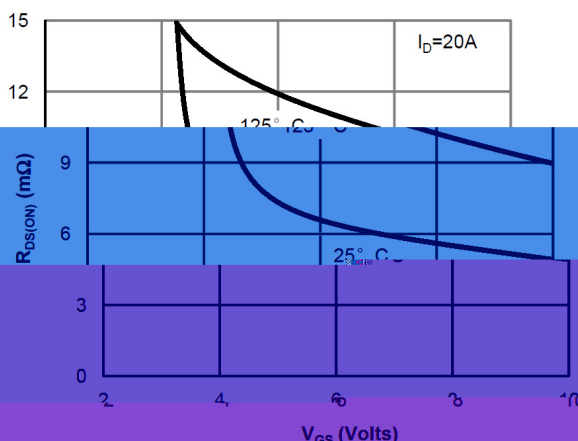
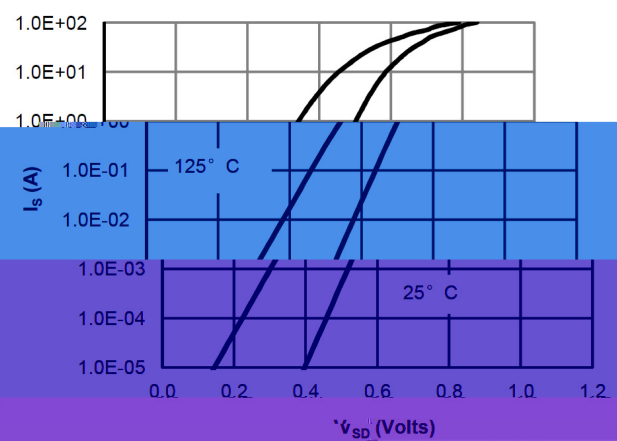


See Marking Instructions.

Parameter	Symbol	Rating	Unit	
Drain-Source Voltage	V_{DSS}	80	V	
Drain Current	$I_D(T_C=25^\circ C)$	115	A	
Pulsed Drain Current	I_{DM}	241	A	
Gate-Source Voltage	V_{GS}	± 20	V	
Single Pulsed Avalanche Energy(L=0.5mH)	E_{AS}	710	mJ	
Avalanche Current	I_{AS}	36.5	A	
Total Power Dissipation	$P_D(T_C=25^\circ C)$	156.2	W	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ C$	
Thermal Resistance-Junction to Ambient	$t \leq 10s$	R_{JA}	15.5	/W
	Steady-State		62.5	
Thermal Resistance-Junction to Case	Steady-State	R_{JC}	0.8	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	80	95		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=85V$ $V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	2	3	4	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=20A$		5.1	6.5	m
	$R_{DS(on)}$	$V_{GS}=6V$ $I_D=10A$		7.0	10	
Forward On Voltage	V_{SD}	$V_{GS}=0V$ $I_S=1A$			1.2	V
Gate resistance	R_g	$f=1MHz$		1.4		
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1MHz$		3230		pF
Output Capacitance	C_{oss}			1310		
Reverse Transfer Capacitance	C_{rss}			185		
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V,$ $I_D=20A$ $V_{DS}=40V,$		46		nC
Gate Source Charge	Q_{gs}			13		
Gate Drain Charge	Q_{gd}			8.5		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ V_{DS}				


Fig 1: On-Region Characteristics

Figure 2: Transfer Characteristics

Figure 3: On-Resistance vs. Drain Current and Gate

Figure 4: On-Resistance vs. Junction Temperature

Figure 5: On-Resistance vs. Gate-Source Voltage

Figure 6: Forward Biased Diode Characteristics

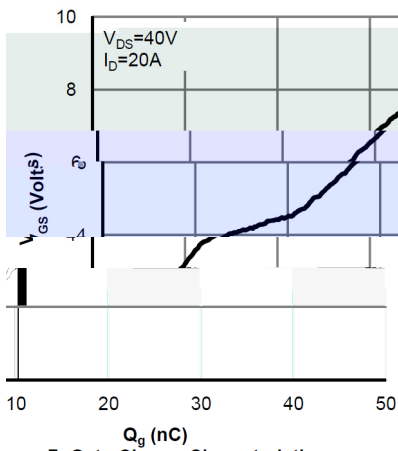


Figure 7: Gate-Charge Characteristics

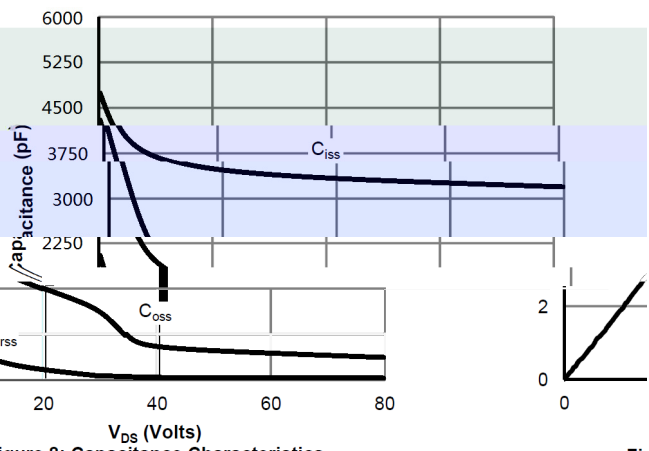


Figure 8: Capacitance Characteristics

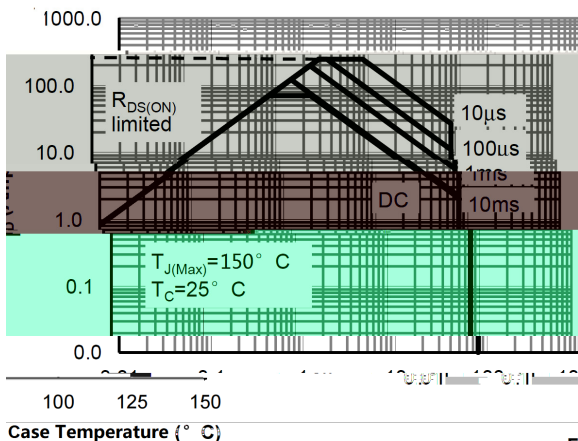


Figure 9: Maximum Continuous Drain Current vs Case Temperature

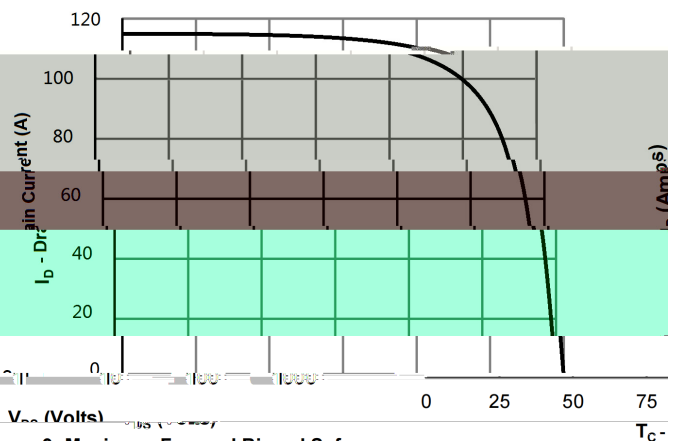


Figure 10: Maximum Forward Biased Safe Operating Area

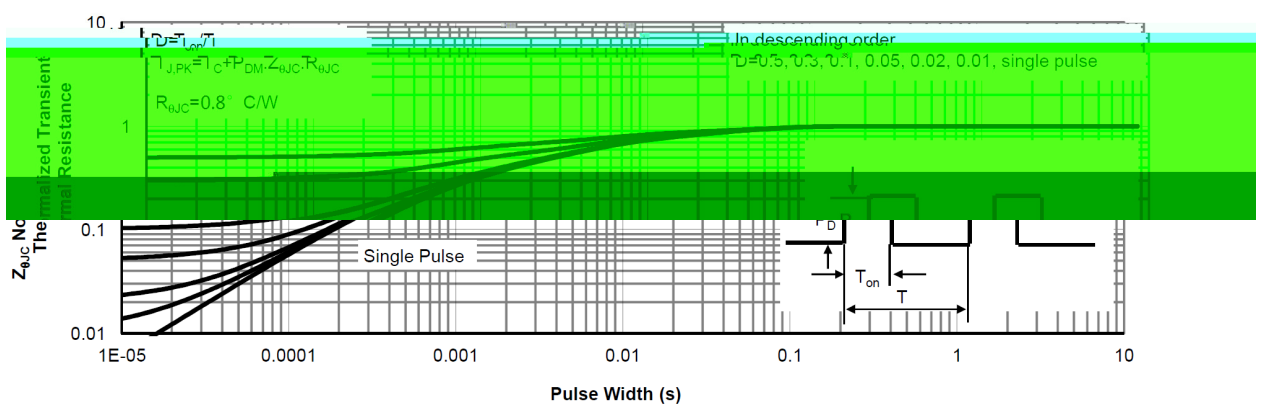
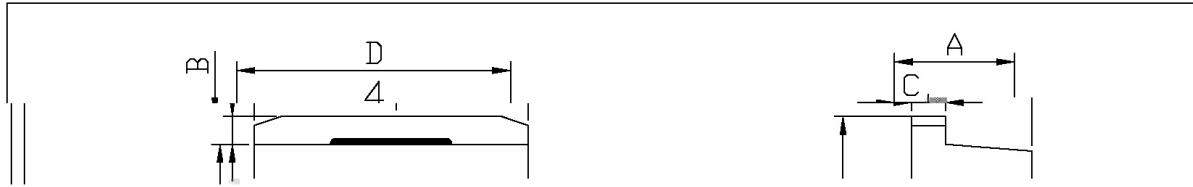


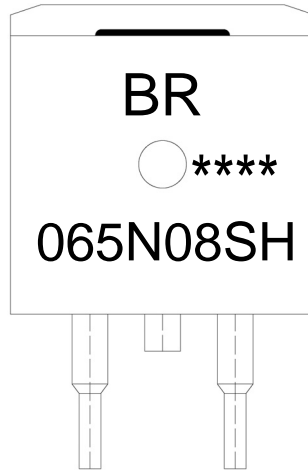
Figure 11: Normalized Maximum Transient Thermal Impedance



单位: mm

symbol	Min	Max	symbol	Min	Max
A	4.30	4.70	E _L	0.00	0.40
B	1.00	1.40	e ₁	2.34	2.74
b	0.70	0.90	e ₂	4.88	5.28
b ₁	1.15	1.35	L ₁	15.00	16.00
b ₂	0.40	0.60	L ₂	2.24	2.64
C	1.20	1.40	L ₃	1.20	1.60
D	9.80	10.20			

TP-263



BR

065N 08SH

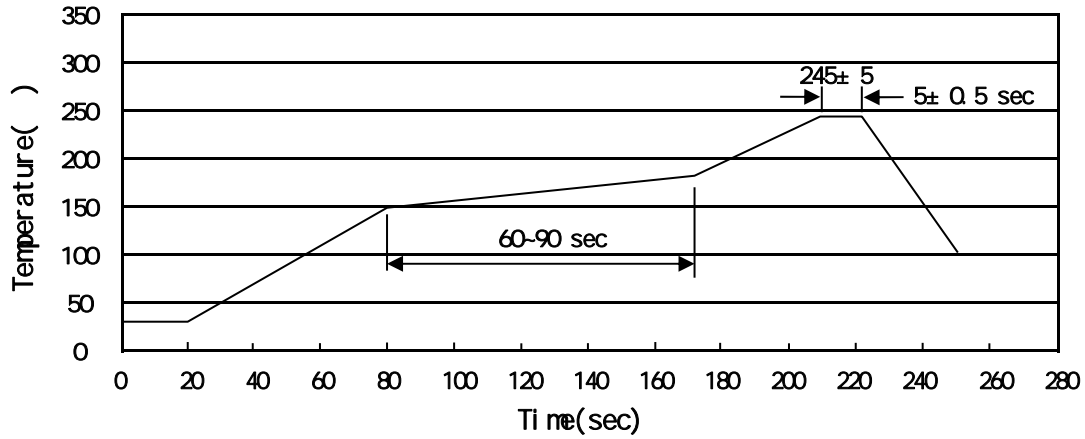
Note:

BR: Company Code

065N08SH: Product Type

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

R n d d P P d e



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°C Time:10±1 sec

/ 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
TO-263	800	1	800	6	4,800	13" x24	360x360x50	380x335x366

/ 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-263	50	20	1,000	5	5,000	532x33x7.0	555x164x50	575x290x180