

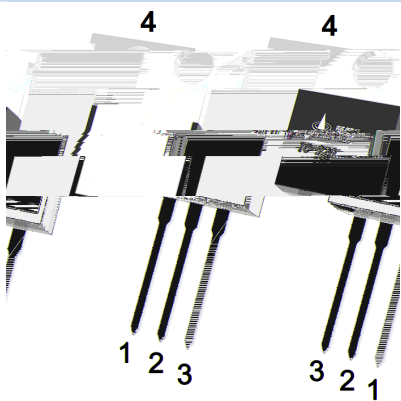
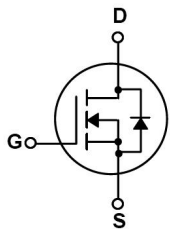
Rev.A Dec.-2023

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

$V_{DS}=80V$ $I_D=155A$
 $R_{DS(on)}@10V$ 4.5m (Type.3.8m)
 $R_{DS(on)}@6V$ 9.0m (Type.5.3m)
 HF Product.

LED

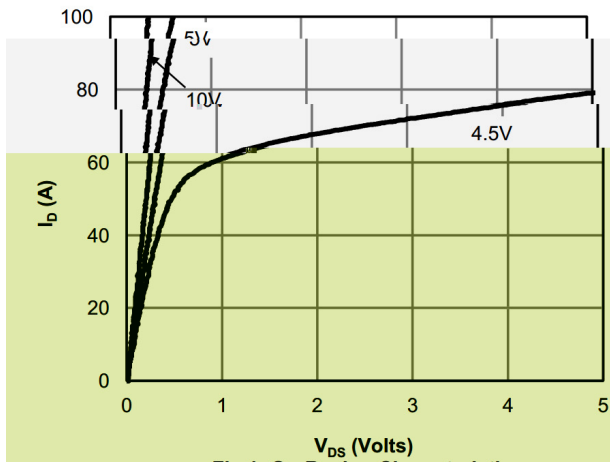
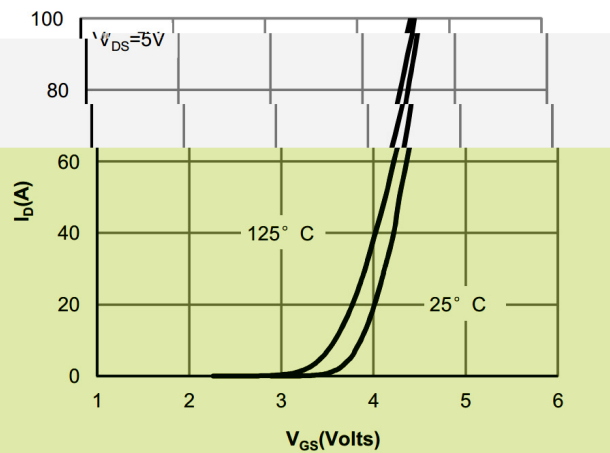
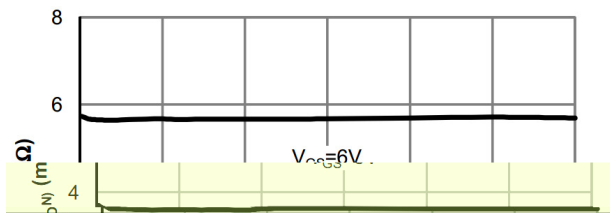
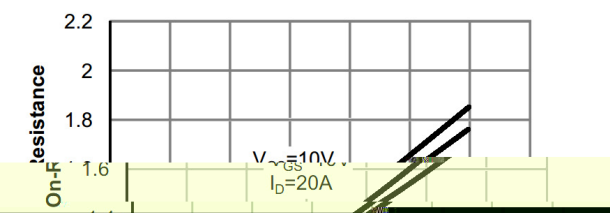
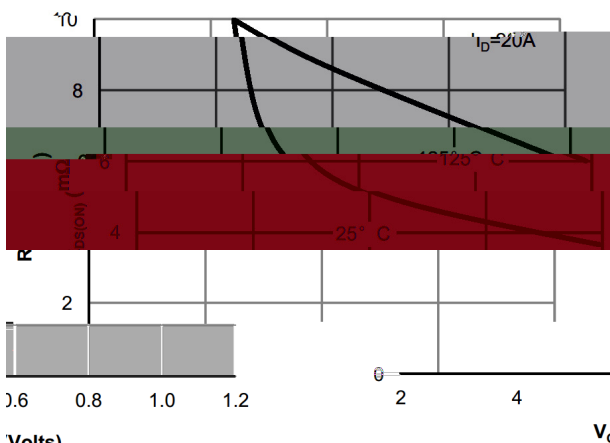
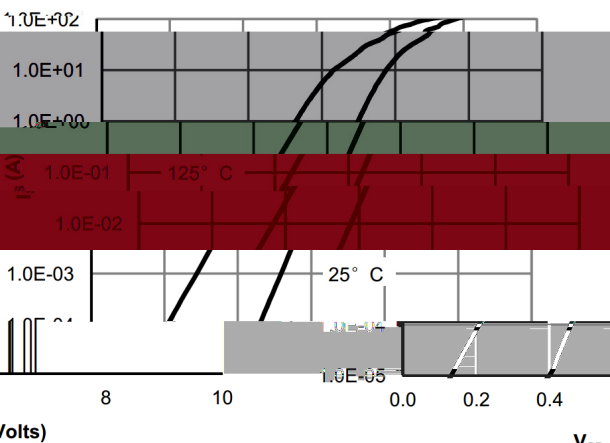
Boost converters and synchronous rectifiers for consumer, telecom, industrial power supplies and LED backlighting.



PIN1 G PIN 2 4 D PIN 3 S

See Marking Instructions.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=40V$ $R_L=2$ $R_{GEN}=3$		19		ns
Turn-On Rise Time	t_r			12.5		
Turn-Off Delay Time	$t_{d(off)}$			40		
Turn-Off Fall Time	t_f			8		


Fig 1: On-Region Characteristics

Figure 2: Transfer Characteristics

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

Figure 4: On-Resistance vs. Junction Temperature

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

Figure 6: Body-Diode Characteristics

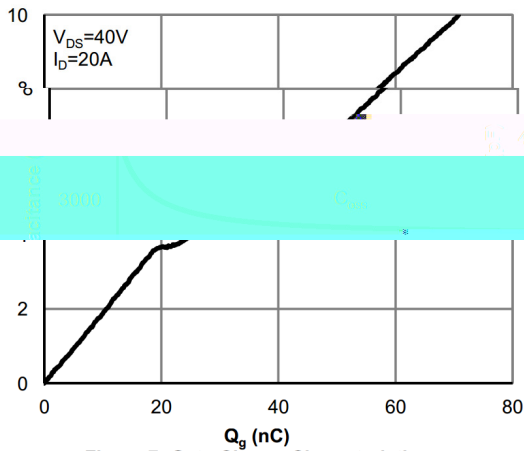


Figure 7: Gate Charge Characteristics

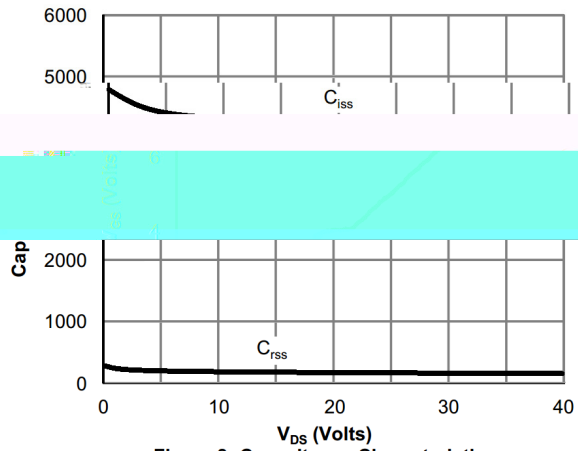


Figure 8: Capacitance Characteristics

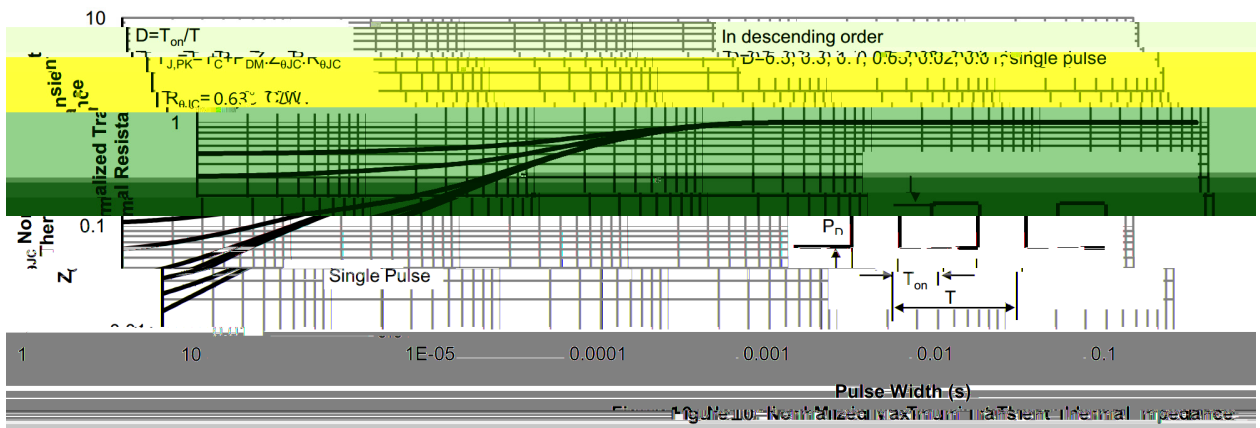
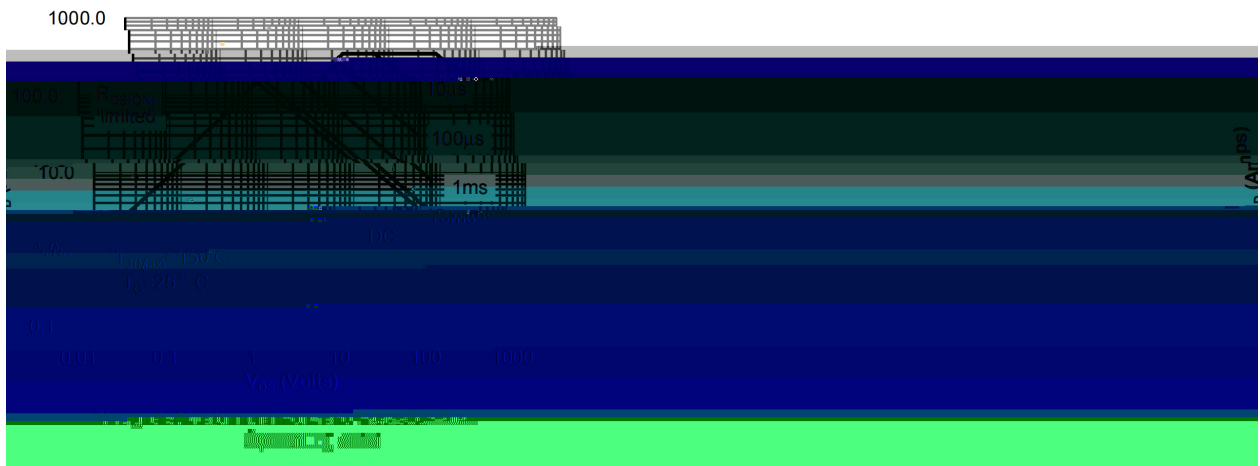
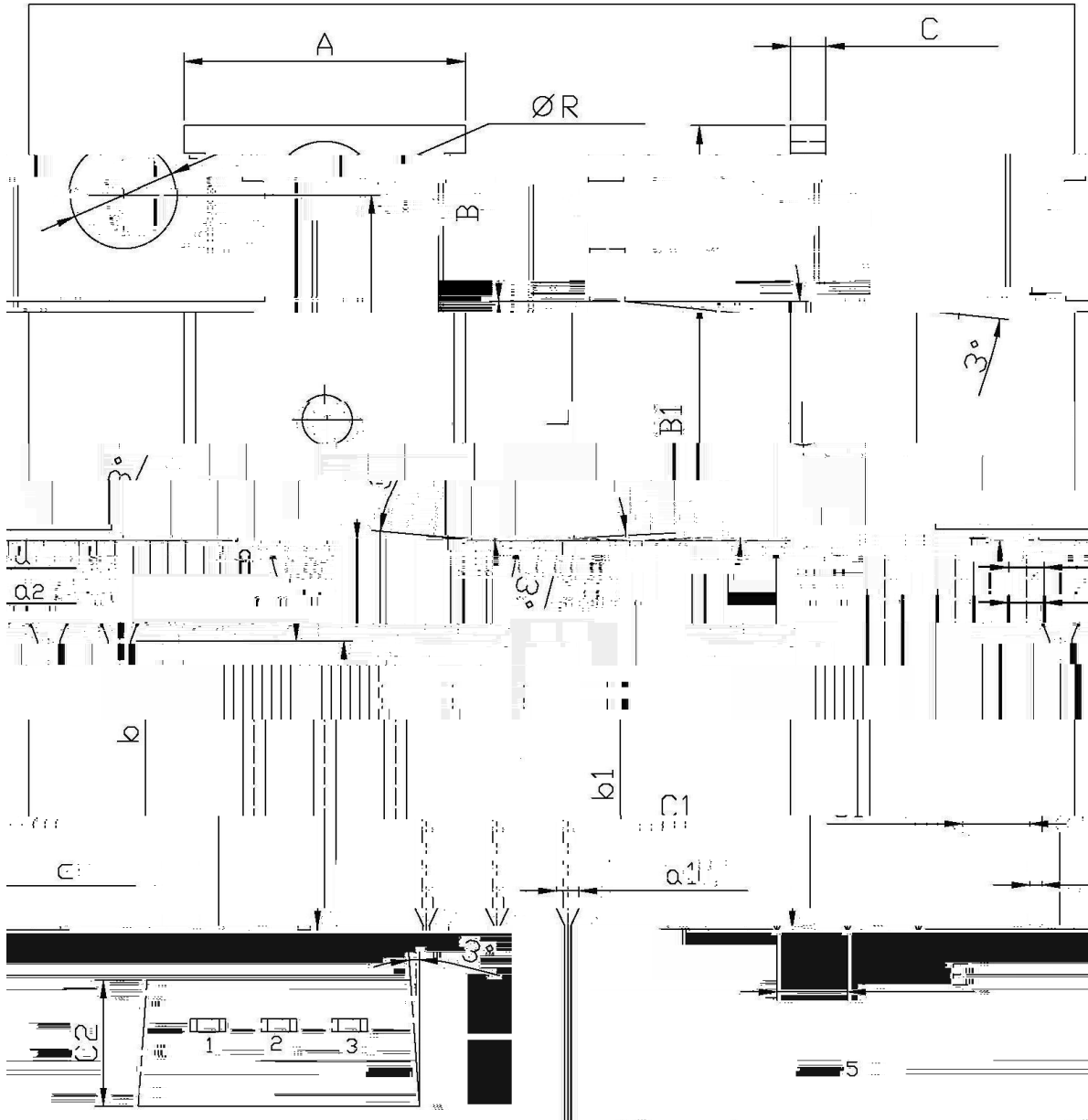


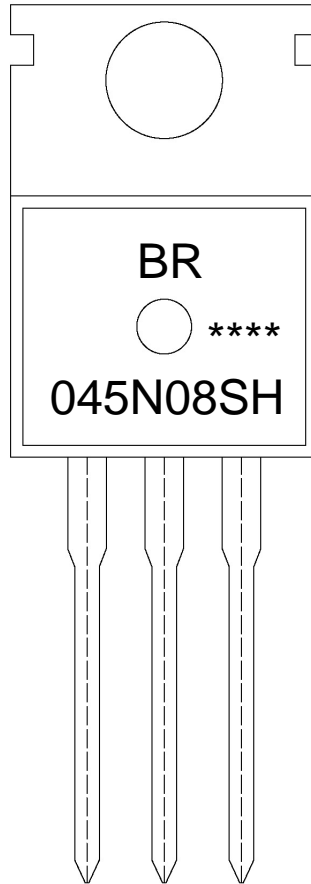
Figure 10: Normalized Maximum Transient Thermal Impedance

TO-220

单位: mm



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	9.8	10.2	C	12	14
R	3.56	3.64	B	6.3	6.7
J	15.7	16.1	B1	9.0	9.4
b	12.6	13.6	C1	2.2	2.6



BR

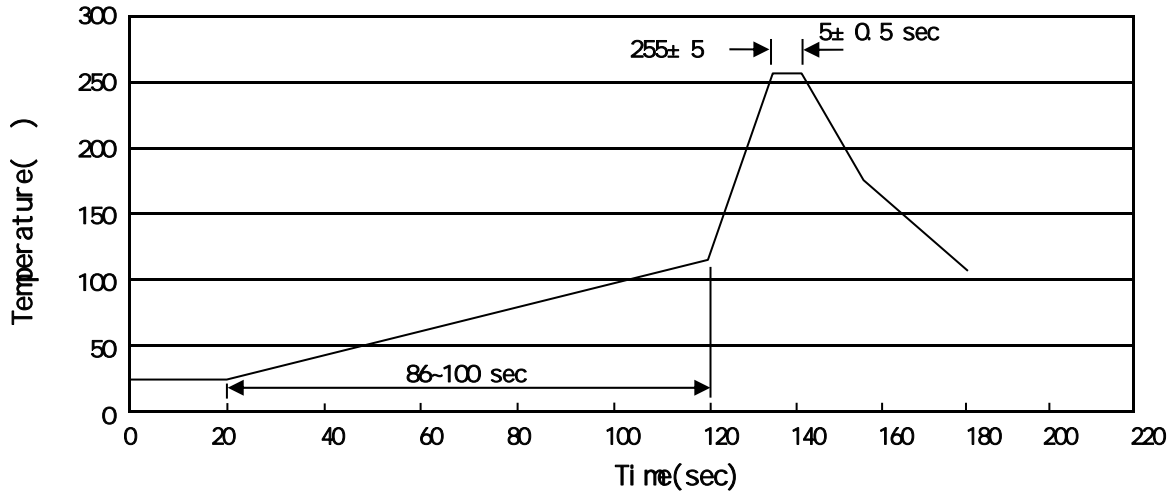
045N 08SH

Note:

BR: Company Code

045N08SH: Product Type Code

****: 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	135x190	237x172x102	560x245x195

/ 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	532x31.4x5.5	555x164x50	575x290x180