

**修订记录**

A	2022.6.22	ALL	AOS-AOD32326		



描述

TO-252 N MOS

N-Channel Enhancement Mode Field Effect Transistor in a TO-252 Plastic Package.

特征

$V_{DS} (V) = 30V$

$I_D = 67A (V_{GS} = \pm 20V)$

$R_{DS(ON)}@10V \leq 6m\Omega$

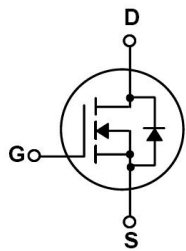
HF Product.

用途

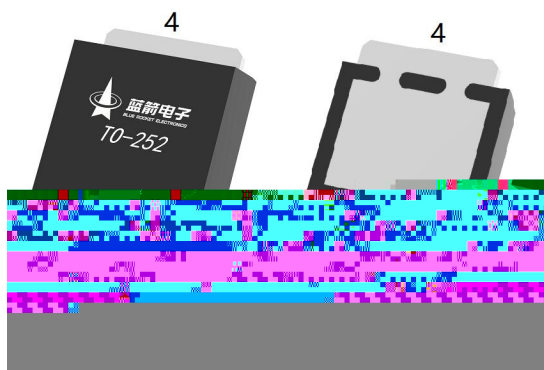
DC/DC

DC/DC Converters in Computing, Suitable for general purpose.

内部等效电路



引脚排列



PIN1 G

PIN 2 D

PIN 3 S

PIN 4 D

印章代码

See Marking Instructions.



Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	30	V
Drain Current		$I_D(T_C=25^{\circ}C)$	67	A
Drain Current - Pulsed		I_{DM}	140	A
Gate-Source Voltage		V_{GSS}	± 20	V
Single Pulsed Avalanche Energy(L=0.5mH)		E_{AS}	185	mJ
Avalanche Current		I_{AS}	21.5	A
Power Dissipation		$P_D(T_C=25^{\circ}C)$	45	W
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to 150	$^{\circ}C$
Junction-to-Ambient	$t \leq 10$	$R_{\theta JA}$	20	$^{\circ}C/W$
Junction-to-Ambient	Steady-State		50	
Junction-to-Case	Steady-State	$R_{\theta JC}$	2.8	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	30	32		V



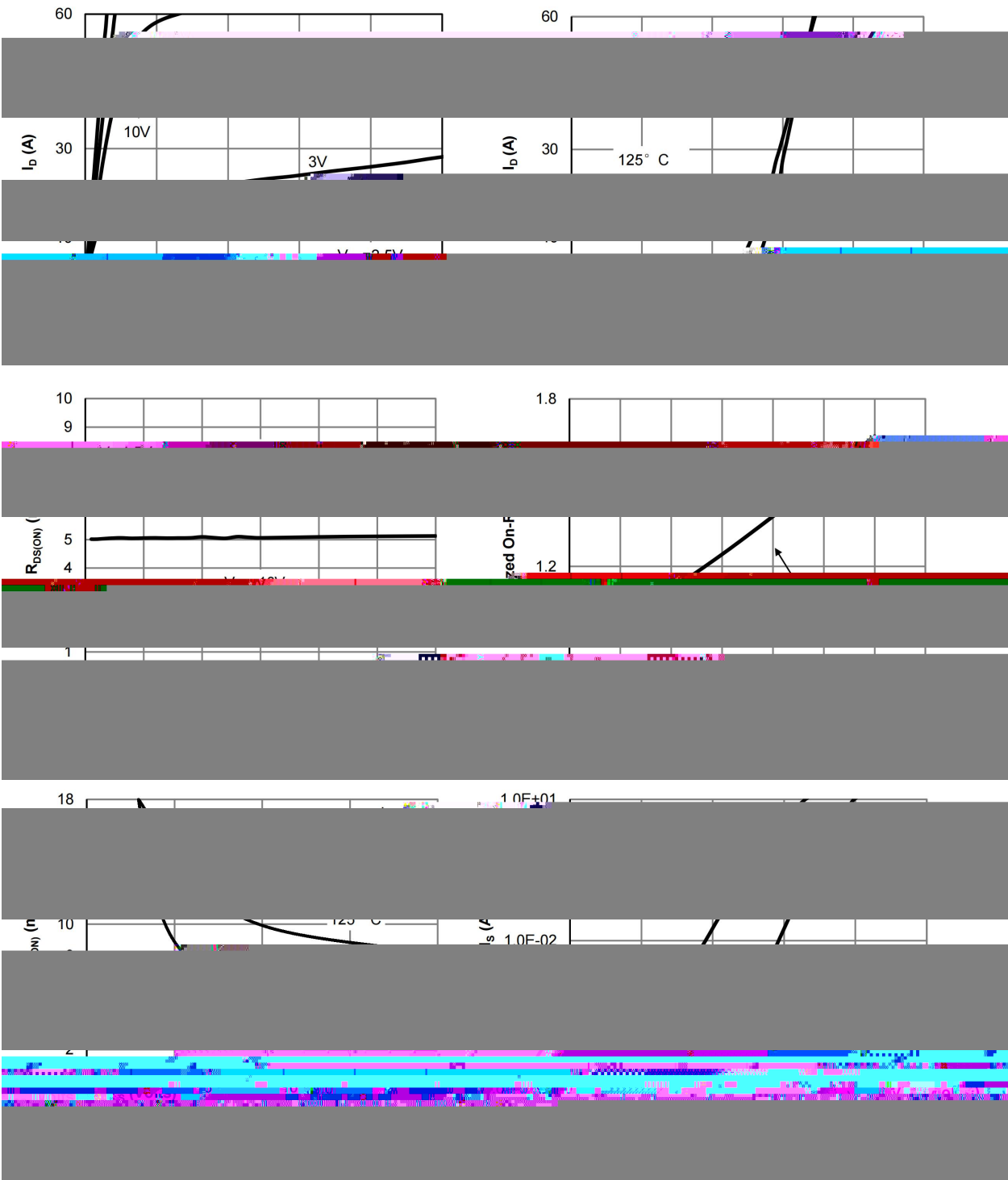
电性能参数

°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $V_{DS}=15V$ $I_D=20A$		38		nC
Total Gate Charge	$Q_{g(4.5V)}$			18		
Gate Source Charge	Q_{gs}			10		
Gate Drain Charge	Q_{gd}			4		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=10V$ $V_{DS}=15V$ $R_L=0.75\Omega$ $R_{GEN}=3\Omega$		10		ns
Turn-On Rise Time	t_r			15		
Turn-Off Delay Time	$t_{d(off)}$			36		
Turn-Off Fall Time	t_f			9		

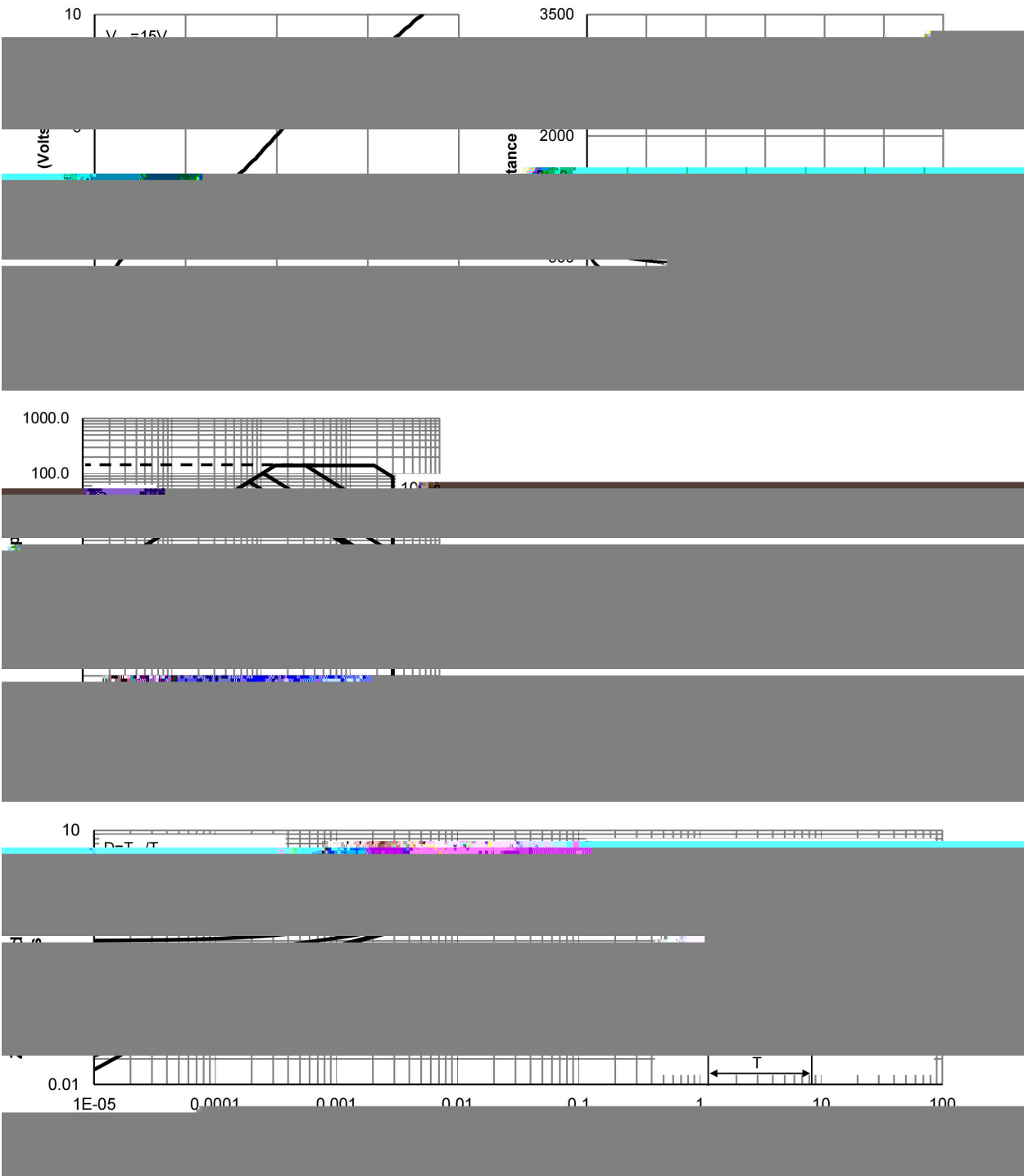


电参数曲线图



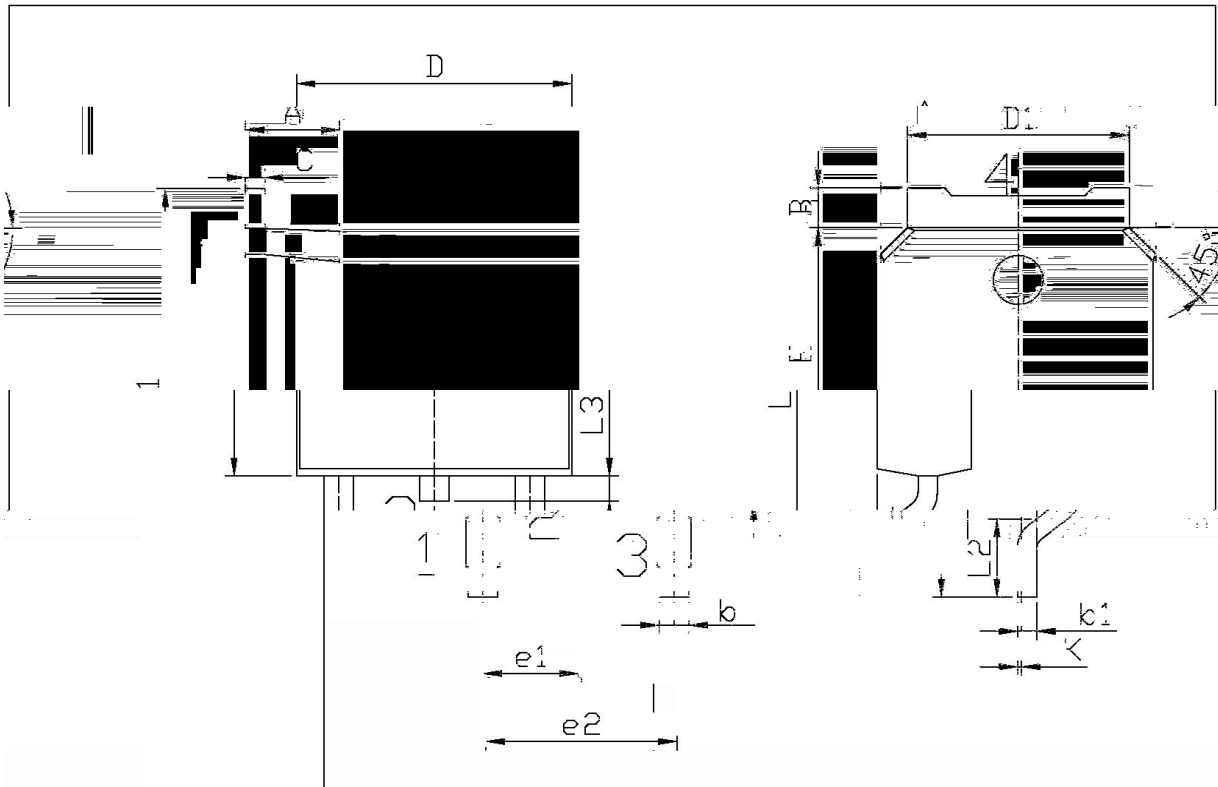


电参数曲线图





外形尺寸图



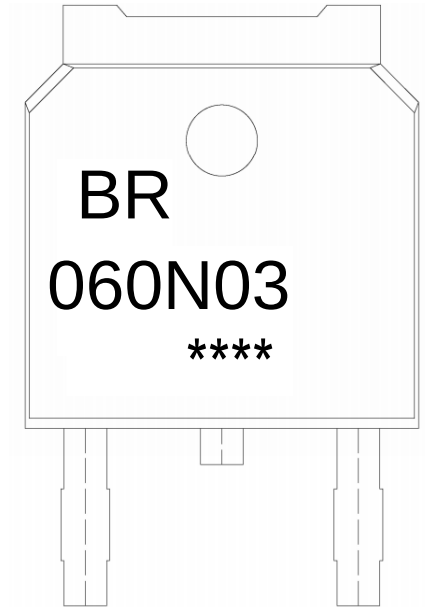
单位: mm

Dimensions in Millimeters				Dimensions in Millimeters			
Symbol	Min	Max	Symbol	Min	Max	Symbol	Min
D	2.20	2.40	e1	3.95	6.25	Symbol	Symbol
L3	0.95	1.25	e2	2.24	2.34	B	Symbol
b1	0.45	0.55	L2	9.85	10.35	Symbol	Symbol
L1	2.00	0.45	L2	0.55	1.70	Symbol	Symbol
D1	0.60	0.90	D1	6.45	6.7	Symbol	Symbol
D1	0.60	0.90	D1	10.40	10.6	Symbol	Symbol

T0-252



印章说明



BR

060N03

Note:

BR: Company Code

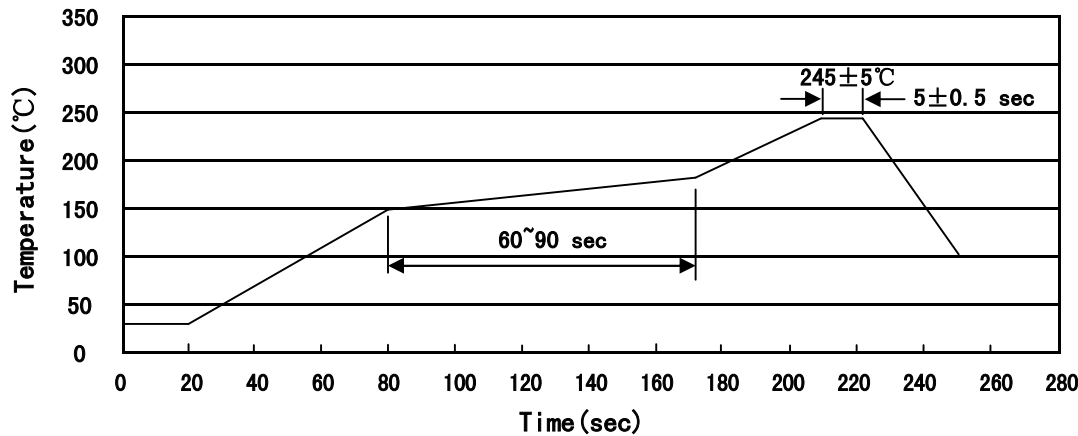
060N03: Product Type Code

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



回流焊温度曲线图 无铅

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

1. Preheating: 150~180°C, Time: 60~90sec.
2. Peak Temp.: 245±5°C, Duration: 5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件

260±5°C 10±1 sec. Temp.: 260±5°C Time: 10±1 sec

包装规格

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000	6	30,000	13" ×16	360×360×50	380×335×366

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

使用说明