

/ Revised record

F	2018-4				
G	2018-10-22				
H	2019-1-09	1			
I	2019-6-13		取消 RDSON@-20V/-10A 的项目		
J	2022-1-10		VGSS=±20V 改为 ±25V; 特征栏和 IGSS 中 VGSS=±20V 改为 ±25V; 极限参数中删除 E 描述。		
A	2022-2-25	ALL	AOS-AOSP21307 BRCS4407SC		

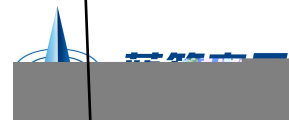
SOP-8 塑封封装 P 沟道 MOS 场效应管。

P-Channel Enhancement Mode Field Effect Transistor in a SOP-8 Plastic Package.

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

$I_D = -14A (V_{GS} = \pm 25v)$

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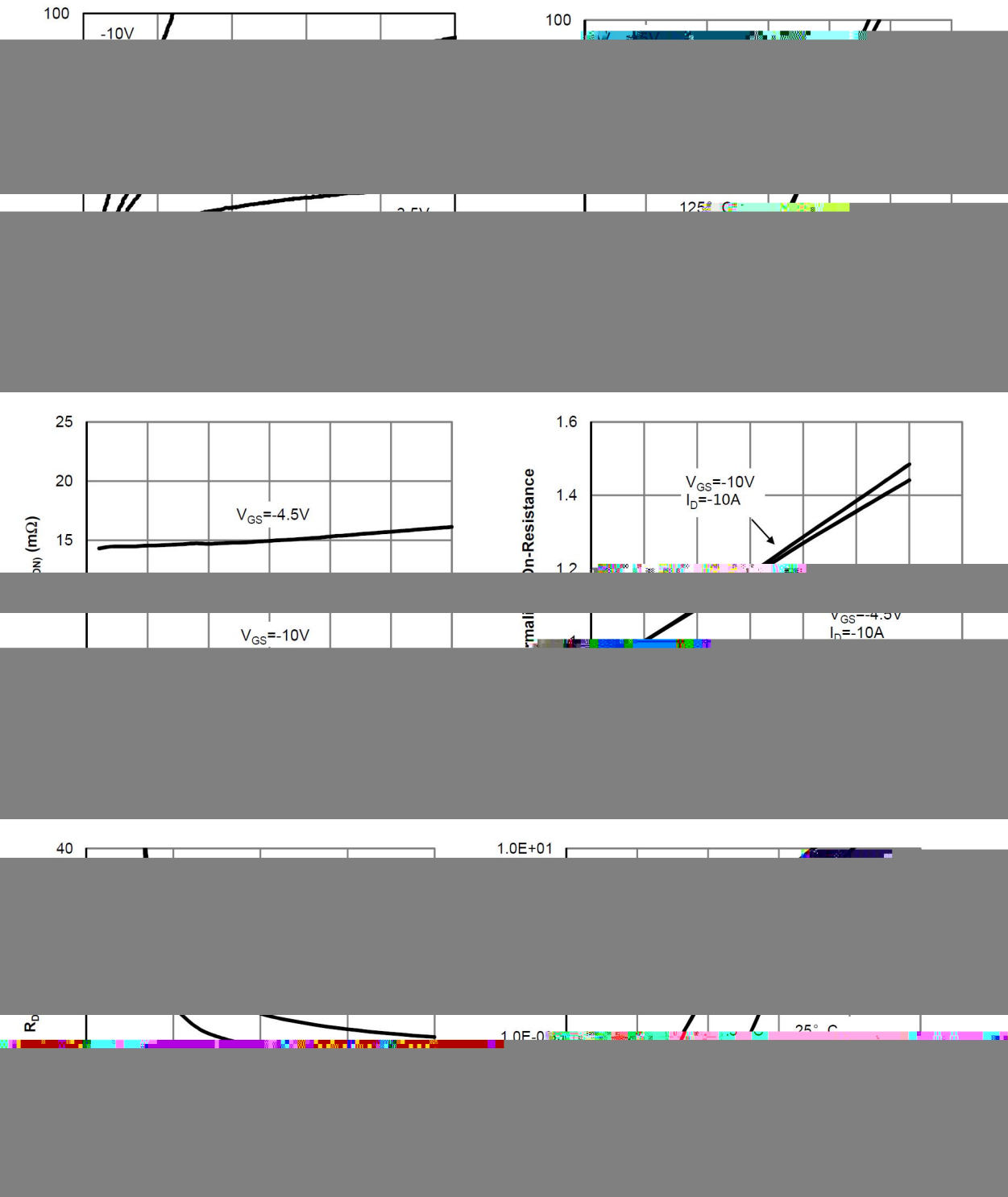


Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-30	V
Gate-Source Voltage	V_{GSS}	± 25	V
Continuous Drain Current	$I_D (T_a=25^\circ\text{C})$	-14	A
Pulsed Drain Current	I_{DM}	-56	A
Power Dissipation for Single Operation	$P_D (T_a=25^\circ\text{C})$	3.1	W
Maximum Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 150	$^\circ\text{C}$
Thermal Resistance-			

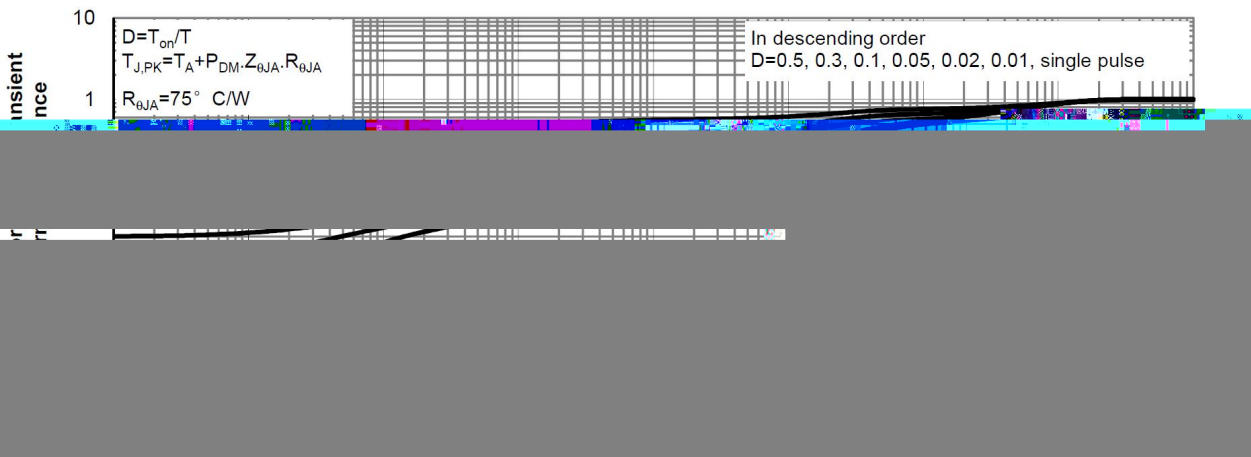
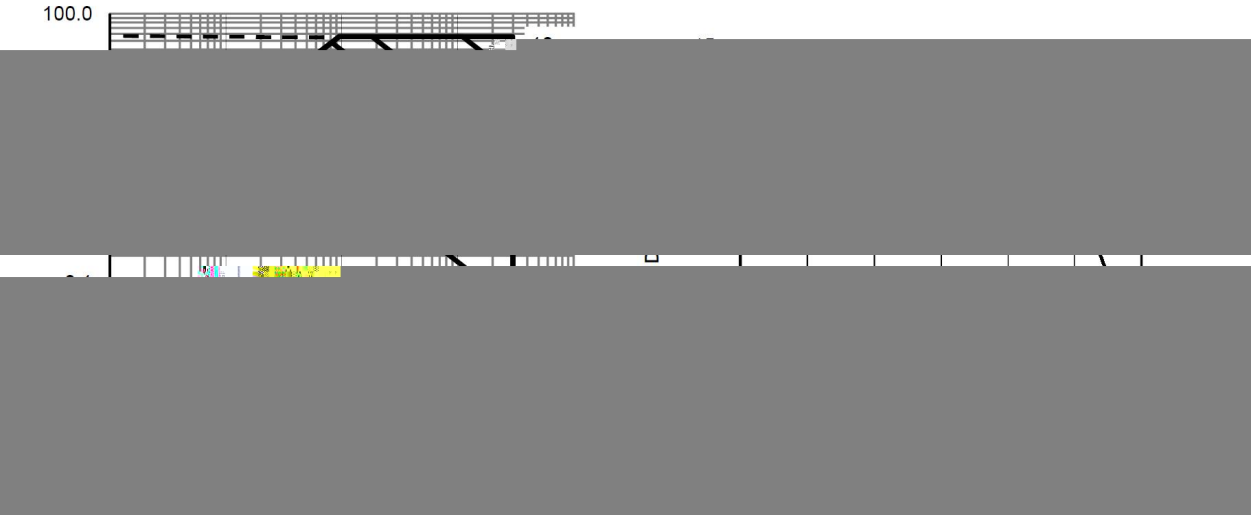
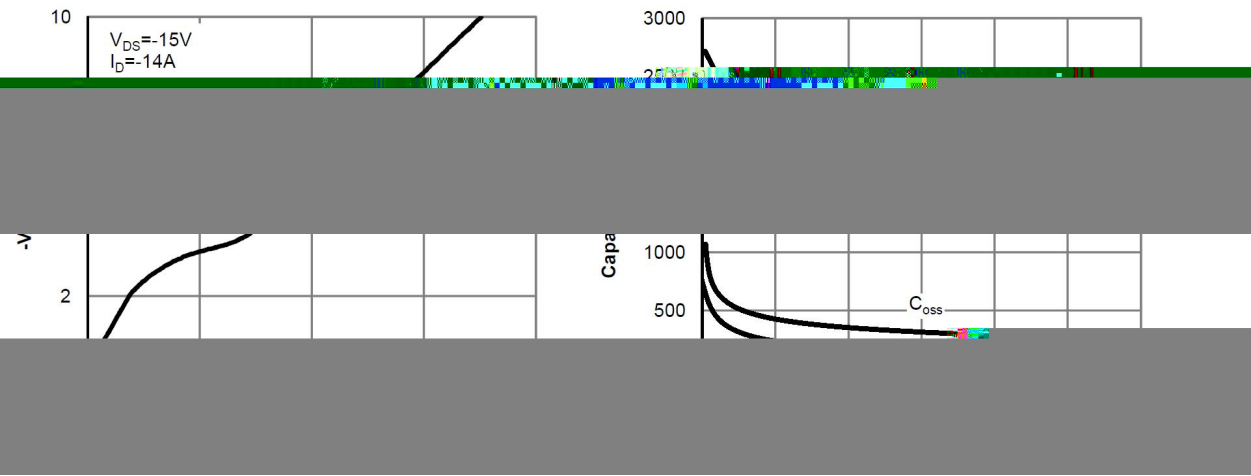


Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = -250\mu A$ $V_{GS} = 0V$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -24V$ $V_{GS} = 0V$			-1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$ $V_{GS} = \pm 25V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ $I_D = -250\mu A$	-1.0	-1.5	-3.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$ $I_D = -10A$		11	14	m Ω
		$V_{GS} = -4.5V$ $I_D = -10A$		14	24	
Diode Forward Voltage	V_{SD}	$I_S = -1A$ $V_{GS} = 0V$			-1.0	V
Total Gate Charge	$Q_{g(10V)}$	$V_{GS} = -10V$ $V_{DS} = -15V$ $I_D = -14A$		35		nC
Total Gate Charge	$Q_{g(4.5V)}$			17		
Gate-Source Charge	Q_{gs}			5.7		
Gate-Drain Charge	Q_{gd}			8.8		
Gate Resistance	R_g	$V_{GS} = 0V$ $f = 1MHz$ $V_{DS} = 0V$		7		Ω
Input Capacitance	C_{iss}	$V_{GS} = 0V$ $f = 1MHz$ $V_{DS} = -25V$		2210		pF
Output Capacitance	C_{oss}					

/ Electrical Characteristic Curve



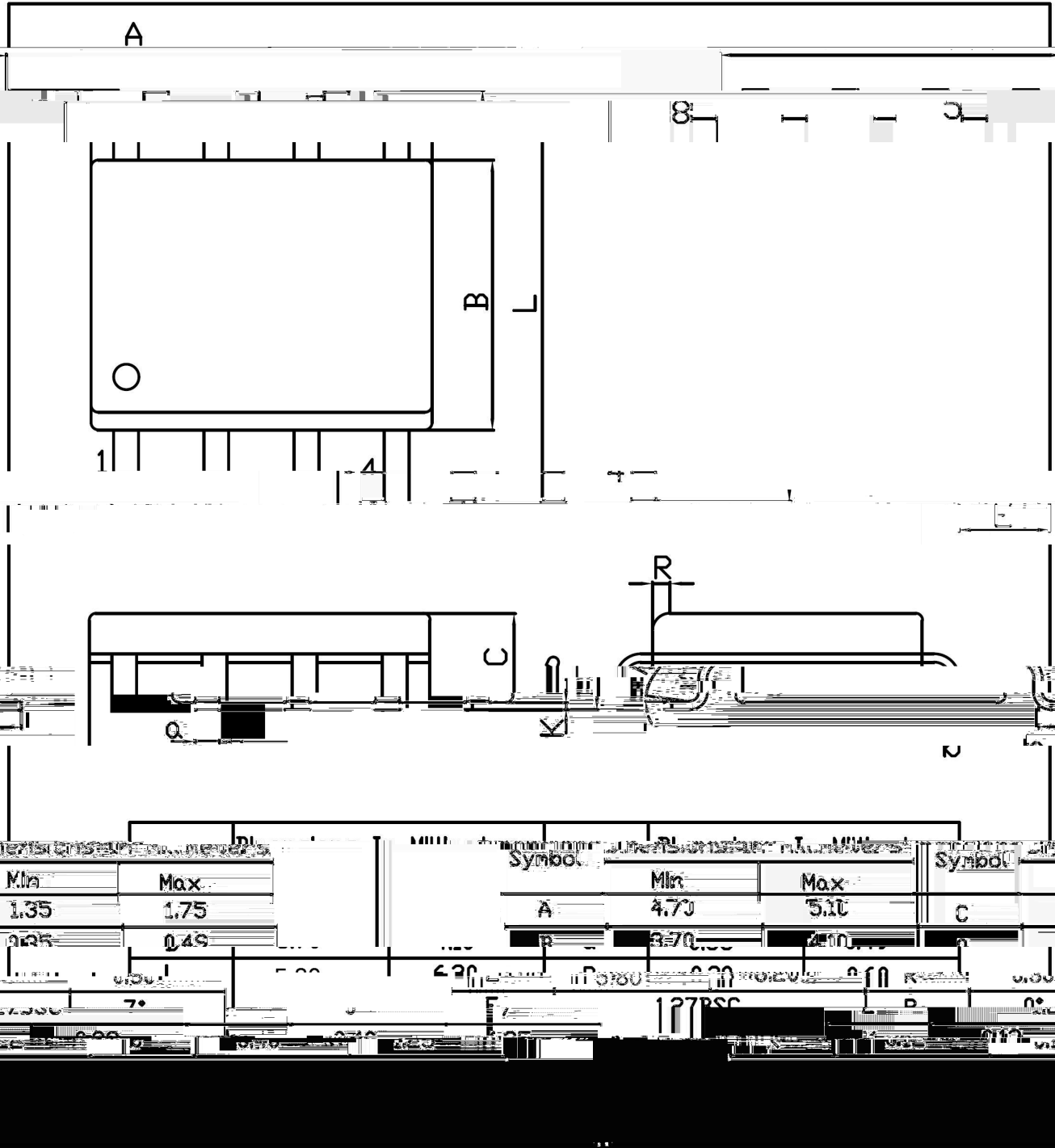
/ Electrical Characteristic Curve



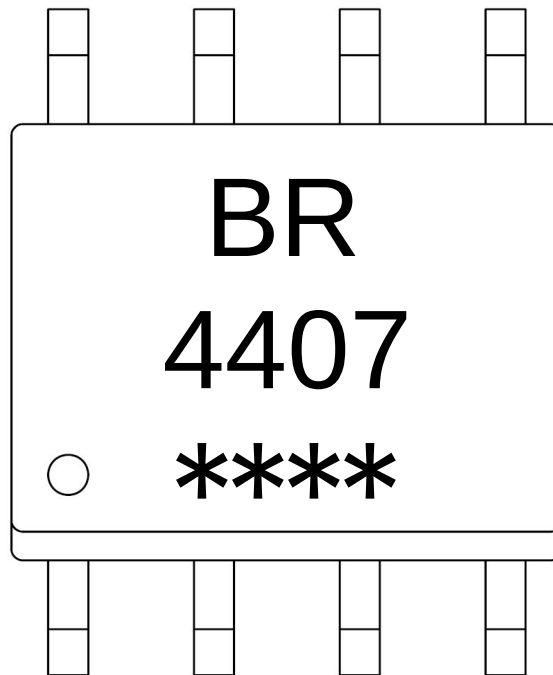
/ Package Dimensions

SOP-8

Unit:mm



/ Marking Instructions



BR

4407

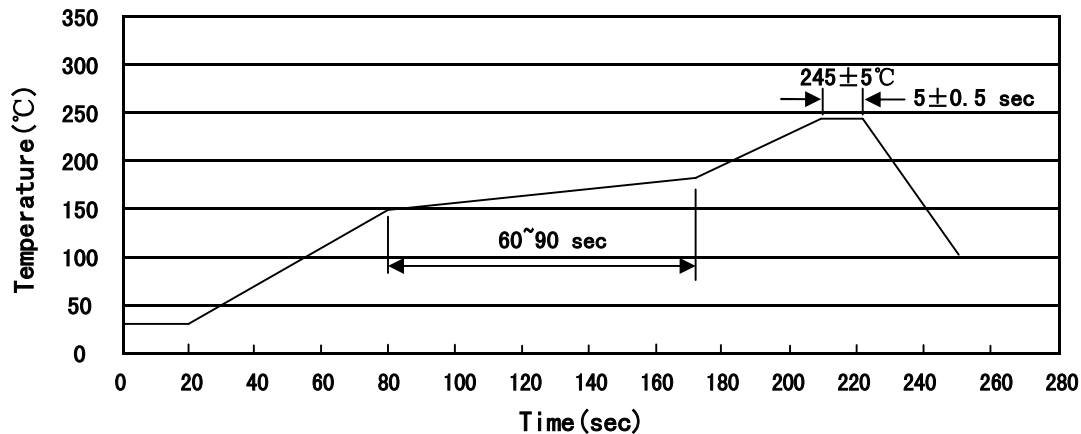
Note:

BR: Company Code

4407: Product Type

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

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

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ 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
SOP/ESOP-8	4,000	2	8,000	6	48,000	13" ×12	360×360×50	380×335×366

/ Notices