



**THE DATASHEET OF
2N4856A**



N-Channel JFET

2N4856 2N4856A
2N4857 2N4857A
2N4858 2N4858A

S SOLID STATE INC.

46 FARRAND STREET
BLOOMFIELD, NEW JERSEY 07003 www.solidstateinc.com

Common Uses

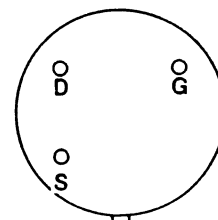
Analog switches
Choppers
Commutators

Absolute Maximum Ratings (25 °C)

Gate-source - 40 V
Gate-drain - 40 V
Drain-source ± 40 V
Gate current 10 mA
Device dissipation
(at or below 25 °C free air temperature) 300 mW
Storage range - 65 ° to + 200 °C

Features

Low on resistance
High off resistance
High speed switch



TO18

Bottom View

Electrical Characteristics (25 °C unless specified)

DC

Characteristic	Symbol	Test Conditions	2N4856 2N4856A		2N4857 2N4857A		2N4858 2N4858A		Units
			Min	Max	Min	Max	Min	Max	
1. Gate reverse current	I_{GSS}	$V_{DS} = 0, V_{GS} = -20 V$		-0.25		-0.25		-0.25	nA
2.			$T_A = 150 °C$		-0.5		-0.5		-0.5
3. Gate-channel break-down voltage	BV_{GSS}	$V_{DS} = 0, I_G = -1 \mu A$	-40		-40		-40		V
4. Gate-source cut off voltage	$V_{GS} (off)$	$V_{DS} = 15 V, I_D = 0.5 nA$	-4	-10	-2	-6	0.8	4	
5. Drain-source on voltage	$V_{DS} (on)$	$V_{GS} = 0$	$I_D = 20 mA$						
6. Drain-source on voltage			$I_D = 10 mA$				0.50		
7.			$I_D = 5 mA$						0.50
8. Saturation drain current (Note 1)	I_{DSS}	$V_{DS} = 15 V, V_{GS} = 0$	50		20	100	8	80	mA
9. Drain cut off current	$I_D (off)$	$V_{DS} = 15 V, V_{GS} = -10 V$		0.25		0.25		0.25	nA
10.			$T_A = 150 °C$		0.50		0.50		0.50

AC

Characteristic	Symbol	Test Conditions	2N4856, 7, 8		2N4856A, 7A, 8A		2N4856, 7, 8		2N4856A, 7A, 8A		Units	
			Min	Max	Min	Max	Min	Max				
11. Input capacitance	C_{iss}	$V_{DS} = 0, V_{GS} = -10 V$	$f = 1 MHz$			18		18		18	pF	
12.			$f = 1 MHz$			10		10		10		
13. Feedback capacitance			C_{rss}	$f = 1 MHz$			8		8			8
14.				$f = 1 MHz$			4		3.5			3.5
15. Drain-source on resistance	$r_{ds} (on)$	$V_{DS} = 0, I_D = 0$		25		40		60	ohms			

Switching

Characteristic	Symbol	Test Conditions	Min	Max	Min	Max	Min	Max	Units
16. Turn-on delay time	$t_d (on)$	$V_{DD} = 10 V, V_{GS} (on) = 0$		5		6		8	ns
17. Rise time	t_r	$I_D (on) \quad V_{GS} (off) \quad R_L$		3		4		8	
18. Turn-off time	$t (off)$			20		40		80	

Notes: 1. Pulse test required, pulse width = 300 μs , duty cycle \leq 3%.

N-Channel JFET

FOR

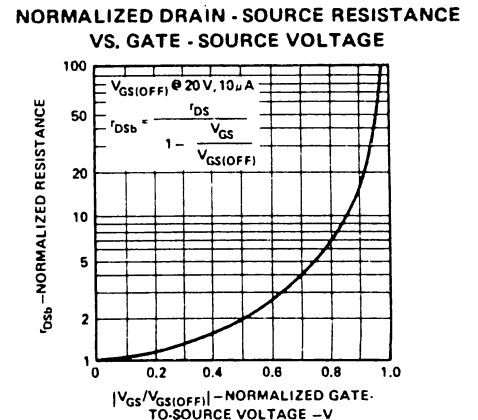
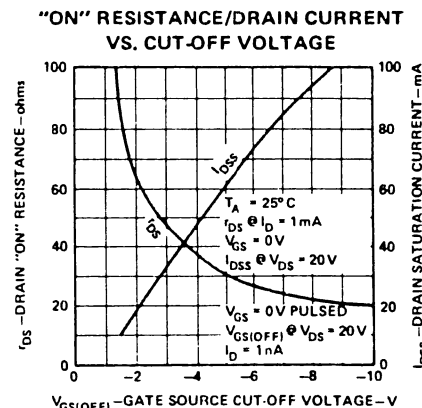
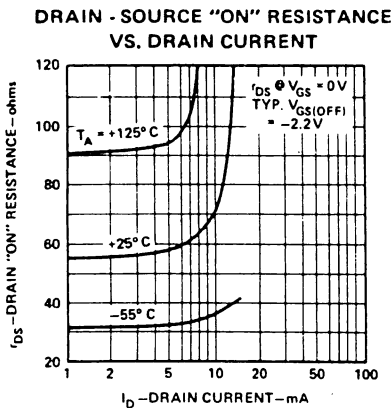
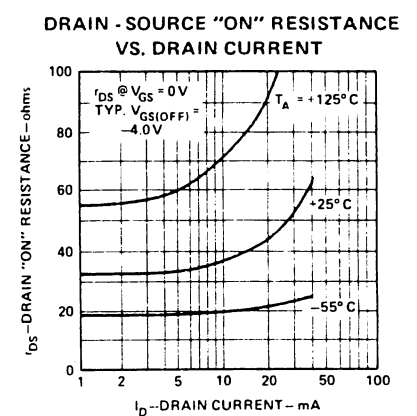
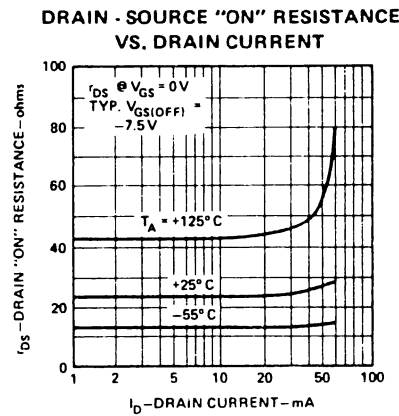
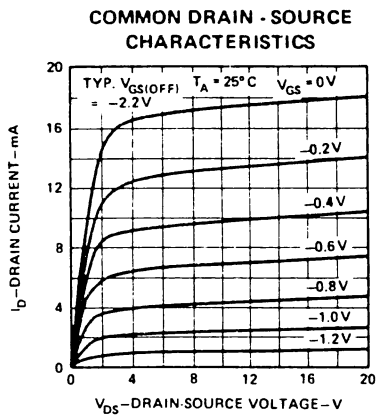
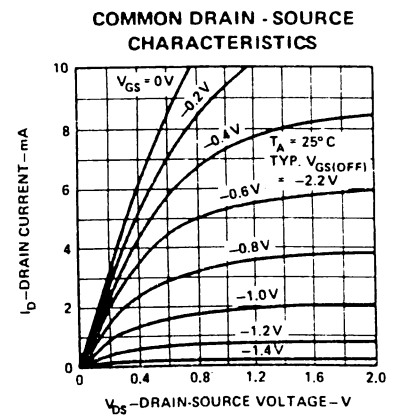
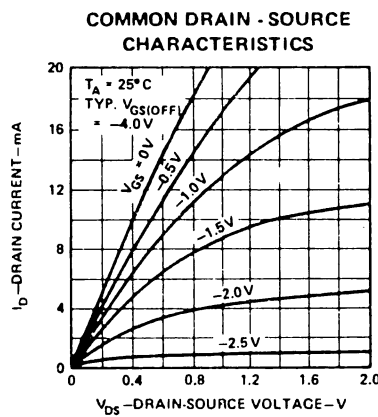
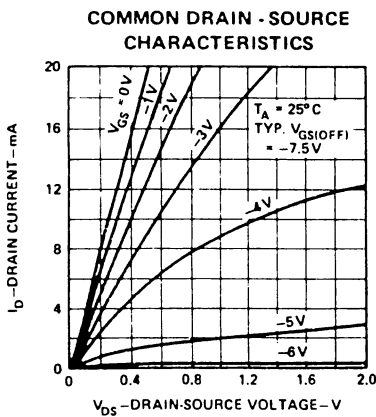
Analog switches
Chopper
Commutators

PACKAGES:

TO18

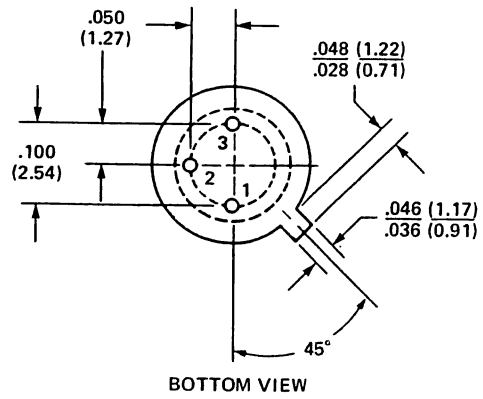
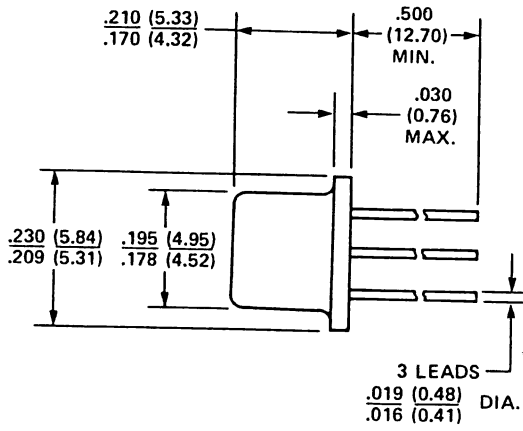
2N4856-61
2N4856A-61A

Typical Characteristics (25°C unless otherwise noted)





Packaging Information

TO-18
(3 PIN)







Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View 2N4856A on WIN SOURCE](#)
-  [Solid State Inc. Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management