N-Channel JFET 15V, 10 to 32mA, 35mS

Automotive JFET designed for compact and efficient designs and including high gain performance. AEC-Q101 qualified JFET and PPAP capable suitable for automotive applications.

Features

- Large | yfs |
- Small Ciss
- This small package enables sets to be smaller and thinner
- Ultralow noise figure
- Pb-Free and RoHS compliance
- AEC-Q101 qualified and PPAP capable

Typical Applications

- AM Tuner RF Amplifier
- Low Noise Amplifier

SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS at Ta = 25°C (Note 1)

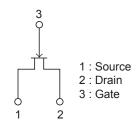
Parameter	Symbol	Value	Unit
Drain-to-Source Voltage	V_{DSX}	15	٧
Gate-to-Drain Voltage	V _{GDS}	-15	V
Gate Current	IG	10	mA
Drain Current	ΙD	50	mA
Allowable Power Dissipation	PD	200	mW
Operating Junction and Storage Temperature	T _{J,} T _{Stg}	-55 to+150	°C

Note 1 : Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.



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ELECTRICAL CONNECTION N-Channel





SC-59 / CP3



NSVJ3557SA3T1G

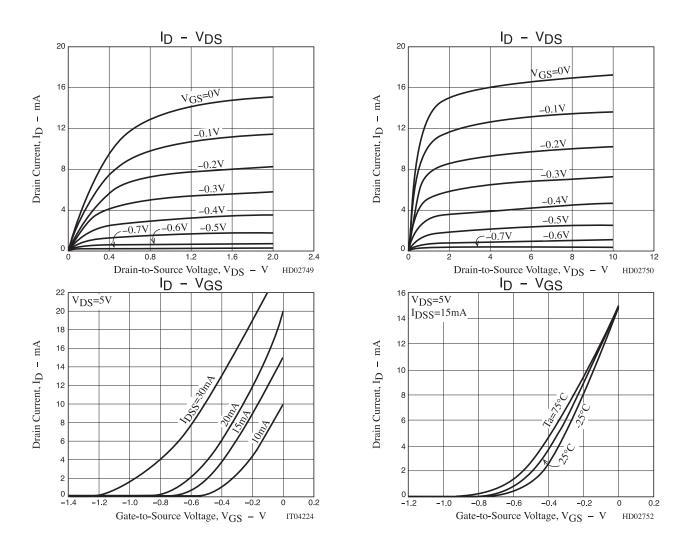
ORDERING INFORMATION

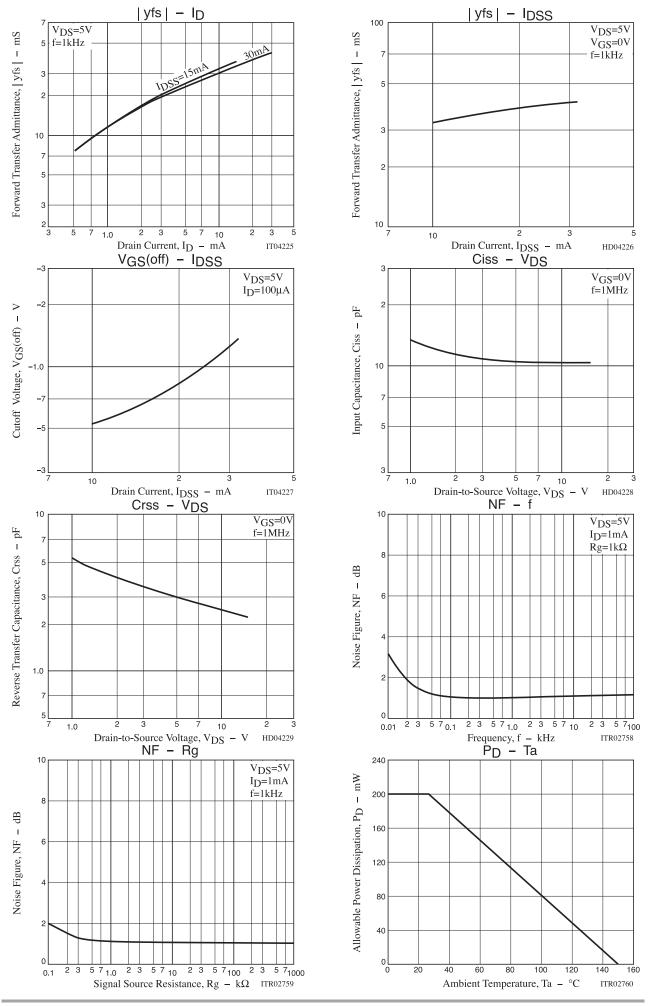
See detailed ordering and shipping information on page 5 of this data sheet

ELECTRICAL CHARACTERISTICS at Ta = 25°C (Note 2)

Parameter	Symbol	Conditions	Value			Unit
Farameter	Symbol	Conditions		typ	max	Offic
Gate-to-Drain Breakdown Voltage	V _(BR) GDS	$I_{G} = -10\mu A, V_{DS} = 0V$	-15			V
Gate Cutoff Current	IGSS	$V_{GS} = -10V, V_{DS} = 0V$			-1	nA
Cutoff Voltage	V _{GS(off)}	V _{DS} = 5V, I _D = 100μA	-0.3	-0.7	-1.5	V
Drain Current	IDSS	$V_{DS} = 5V$, $V_{GS} = 0V$	10		32	mA
Forward Transfer Admittance	yfs	$V_{DS} = 5V, V_{GS} = 0V, f = 1kHz$	24	35		mS
Input Capacitance	Ciss	V _{DS} = 5V, V _{GS} = 0V, f = 1MHz		10		pF
Reverse Transfer Capacitance	Crss	VDS = 3V, VGS = 3V, I = 110112		2.9		pF
Noise Figure	NF	V_{DS} = 5V, Rg=1k Ω , I $_{D}$ =1mA, f=1kHz		1		dB

Note 2 : Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

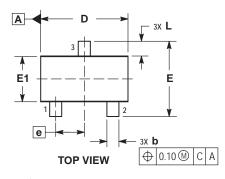


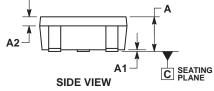


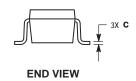
PACKAGE DIMENSIONS

unit: mm

SC-59 / CP3 CASE 318BJ ISSUE O







- NOTES:
 1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
 2. CONTROLLING DIMENSION: MILLIMETERS.
 3. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.20 PER SIDE.
 4. DIMENSIONS D AND E1 ARE MEASURED AT THE OUTERMOST EXTREME OF THE PLASTIC BODY.
 5. DIMENSIONS b AND c APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.10 AND 0.20 FROM THE TIP.

	MILLIMETERS		
DIM	MIN	MAX	
Α	0.95	1.35	
A1	0.00	0.10	
A2	0.20	0.40	
b	0.35	0.50	
С	0.10	0.20	
D	2.75	3.05	
Е	2.30	2.70	
E1	1.35	1.65	
е	0.95 BSC		
L	0.35	0.75	

GENERIC MARKING DIAGRAM

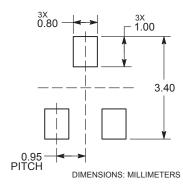


XXX = Specific Device Code

Μ = Date Code = Pb-Free Package

(Note: Microdot may be in either location)

RECOMMENDED SOLDERING FOOTPRINT*



*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

^{*}This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "■", may or may not be present.

ORDERING INFORMATION

Device	Marking	Package	Shipping
NSVJ3557SA3T1G	IR	SC-59 3-Lead / CP3 (Pb-Free)	3,000 / Tape & Reel

[†] For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D. http://www.onsemi.com/pub_link/Collateral/BRD8011-D.PDF

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