

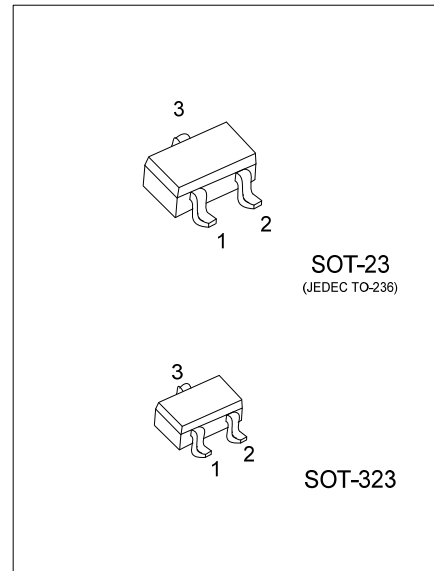


## K1875

Preliminary

JFET

### FIELD EFFECT TRANSISTOR SILICON N CHANNEL JUNCTION TYPE



#### DESCRIPTION

The UTC **K1875** is an N-channel JFET, it uses UTC's advanced technology to provide customers low input capacitance and high forward transfer admittance.

The UTC **K1875** is suitable for high frequency amplifier and audio frequency amplifier applications, etc.

#### FEATURES

- \* High forward transfer admittance
- \* Low input capacitance

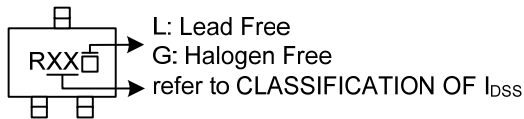
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
K1875L-xx-AE3-R	K1875G-xx-AE3-R	SOT-23	S	D	G	Tape Reel
K1875L-xx-AL3-R	K1875G-xx-AL3-R	SOT-323	S	D	G	Tape Reel

Note: Pin Assignment: S: Source D: Drain G: Gate

<p>K1875G-xx-AE3-R</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Rank</li> <li>(4) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) AE3: SOT-23, AL3: SOT-323</li> <li>(3) xx: refer to Classification of <math>I_{DSS}</math></li> <li>(4) G: Halogen Free and Lead Free, L: Lead Free</li> </ul>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Gate-Drain Voltage	$V_{GDS}$	-20	V
Gate-Current	$I_G$	10	mA
Drain Power Dissipation	$P_D$	100	mW
Junction Temperature	$T_J$	+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ +125	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Gate Leakage Current	$I_{GSS}$	$V_{GS}=-15\text{V}, V_{DS}=0\text{V}$			-1.0	nA
Gate-Drain Breakdown Voltage	$V_{(BR)GDS}$	$V_{DS}=0\text{V}, I_G=-100\mu\text{A}$	-20			V
Drain Current	$I_{DSS}$	$V_{DS}=5\text{V}, V_{GS}=0\text{V}$	6		32	mA
Gate-Source Cut-Off Voltage	$V_{GS}(\text{OFF})$	$V_{DS}=5\text{V}, I_D=1\mu\text{A}$			-2.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=5\text{V}, V_{GS}=0\text{V}, f=1\text{kHz}$	15	25		mS
Input Capacitance	$C_{iss}$	$V_{DS}=5\text{V}, V_{GS}=0\text{V}, f=1\text{MHz}$		7.5	10	pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DG}=5\text{V}, I_D=0\text{V}, f=1\text{MHz}$		2	3	pF

■ CLASSIFICATION OF  $I_{DSS}$

RANK	GR	BL	V
RANGE	6~12	10~20	16~32

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