

**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

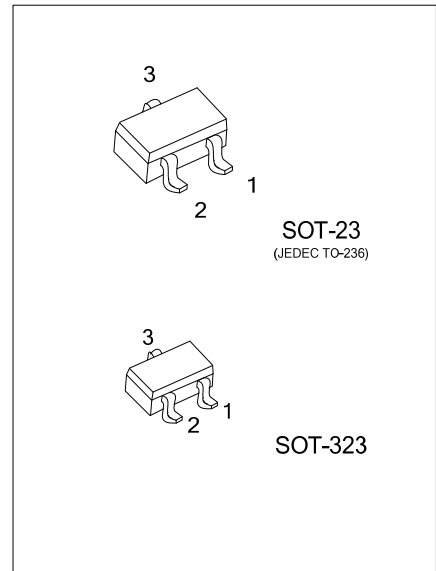
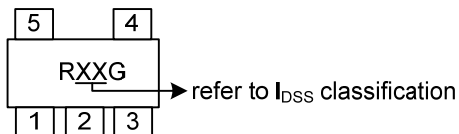
- * High forward transfer admittance
- * Low input capacitance

ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
K1875G-xx-AE3-R	SOT-23	D	S	G	Tape Reel
K1875G-xx-AQ3-R	SOT-723	D	S	G	Tape Reel

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

K1875G-xx-AE3-R (1) Packing Type (2) Package Type (3) Rank (4) Green Package	(1) R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323 (3) xx: refer to Classification of I_{DSS} (4) G: Halogen Free and Lead Free
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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}	$V_{\text{GS}}=-15\text{V}$, $V_{\text{DS}}=0\text{V}$			-1.0	nA
Gate-Drain Breakdown Voltage	$V_{(\text{BR})\text{GDS}}$	$V_{\text{DS}}=0\text{V}$, $I_{\text{G}}=-100\mu\text{A}$	-20			V
Drain Current	I_{DSS}	$V_{\text{DS}}=5\text{V}$, $V_{\text{GS}}=0\text{V}$	6		32	mA
Gate-Source Cut-Off Voltage	$V_{\text{GS}}(\text{OFF})$	$V_{\text{DS}}=5\text{V}$, $I_{\text{D}}=1\mu\text{A}$			-2.5	V
Forward Transfer Admittance	$ Y_{\text{fs}} $	$V_{\text{DS}}=5\text{V}$, $V_{\text{GS}}=0\text{V}$, $f=1\text{kHz}$	15	25		mS
Input Capacitance	C_{iss}	$V_{\text{DS}}=5\text{V}$, $V_{\text{GS}}=0\text{V}$, $f=1\text{MHz}$		7.5	10	pF
Reverse Transfer Capacitance	C_{rss}	$V_{\text{DG}}=5\text{V}$, $I_{\text{D}}=0\text{V}$, $f=1\text{MHz}$		2	3	pF

■ **CLASSIFICATION OF I_{DSS}**

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

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