

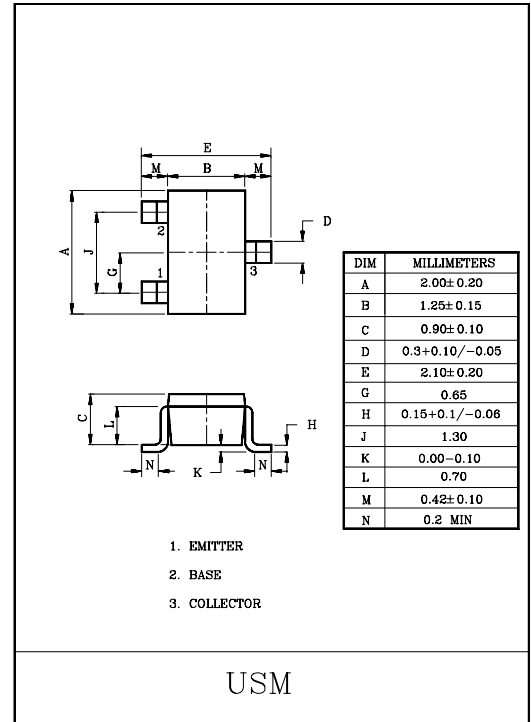
HIGH SPEED SWITCHING APPLICATION.

### FEATURES

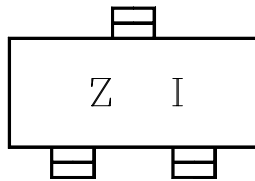
- High Frequency Characteristics  
:  $f_T=500\text{MHz}$  (Min.) ( $V_{CE}=10\text{V}$ ,  $f=100\text{MHz}$ ,  $I_C=10\text{mA}$ ).
- Excellent Switching Characteristics.

### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

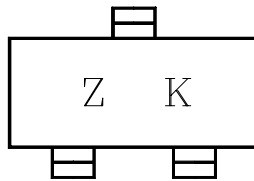
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	15	V
Emitter-Base Voltage	$V_{EBO}$	4.5	V
Collector Current	$I_C$	500	mA
Collector Power Dissipation ( $T_a=25^\circ\text{C}$ )	$P_C$	100	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ\text{C}$



### Marking



KTN2369V



KTN2369AV

### MARK SPEC

TYPE	MARK
KTN2369U	Z I
KTN2369AU	Z K

# KTN2369U/AU

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		$I_{CBO}$	$V_{CB}=20V, I_E=0$	-	-	0.4	$\mu A$
			$V_{CB}=20V, I_E=0, T_a=125^\circ C$	-	-	30	
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	40	-	-	V
Collector-Emitter Breakdown Voltage *		$V_{(BR)CEO}$	$I_E=10mA, I_B=0$	15	-	-	
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	4.5	-	-	
DC Current Gain *	KTN2369U	$h_{FE}$	$I_C=10mA, V_{CE}=1.0V$	40	-	120	
	KTN2369AU			-	-	120	
	KTN2369U		$I_C=10mA, V_{CE}=1.0V, T_a=-55^\circ C$	20	-	-	
	KTN2369AU		$I_C=10mA, V_{CE}=0.35V, T_a=-55^\circ C$	20	-	-	
	KTN2369U		$I_C=100mA, V_{CE}=2.0V$	20	-	-	
	KTN2369AU		$I_C=100mA, V_{CE}=1.0V$	20	-	-	
Collector-Emitter Saturation Voltage *		$V_{CE(sat)}$	$I_C=10mA, I_B=1.0mA$	-	-	0.25	V
Base-Emitter Saturation Voltage *		$V_{BE(sat)}$	$I_C=10mA, I_B=1.0mA$	0.70	-	0.85	V
Transition Frequency		$f_T$	$I_C=10mA, V_{CE}=10V, f=100MHz$	500	-	-	MHz
Collector Output Capacitance		$C_{ob}$	$V_{CB}=5.0V, I_E=0, f=1.0MHz$	-	-	4.0	pF
Storage Time	KTN2369AU	$T_{stg}$	$I_C=100mA, I_{B1}=-I_{B2}=10mA, V_{CC}=10V$	-	-	13	nS
Turn-on Time		$t_{on}$	$V_{CC}=3.0V, I_C=10mA, I_{B1}=3.0mA, I_{B2}=-1.5mA$	-	-	12	
Turn-off Time	KTN2369AU	$t_{off}$	$I_C=10mA, I_{B1}=3.0mA, I_{B2}=-1.5mA, V_{CC}=3.0V$	-	-	15	

Note : \*Pulse Test : Pulse Width  $\leq 300\mu S$ , Duty Cycle  $\leq 2.0\%$