

# SEMICONDUCTOR TECHNICAL DATA

# **KDS122**

# SILICON EPITAXIAL PLANAR DIODE

#### ULTRA HIGH SPEED SWITCHING APPLICATION.

# **FEATURES**

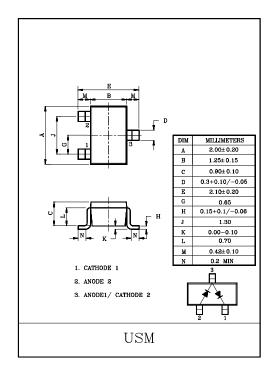
• Small Package : USM.

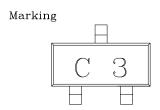
 $\begin{array}{lll} \bullet & Low \ Forward \ Voltage & : \ V_F = 0.9V(Typ.). \\ \bullet & Fast \ Reverse \ Recovery \ Time & : \ t_{rr} = 1.6ns(Typ.). \\ \bullet & Small \ Total \ Capacitance & : \ C_T = 0.9pF(Typ.). \end{array}$ 

# MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Maximum (Peak) Reverse Voltage	$ m V_{RM}$	85	V	
Reverse Voltage	$V_{\mathrm{R}}$	80	V	
Maximum (Peak) Forward Current	$I_{\mathrm{FM}}$	300 *	mA	
Average Forward Current	$I_{\mathrm{O}}$	100 *	mA	
Surge Current (10ms)	$I_{\mathrm{FSM}}$	2 *	A	
Power Dissipation	$P_{\mathrm{D}}$	100	mW	
Junction Temperature	$T_{j}$	150	C	
Storage Temperature Range	$T_{\mathrm{stg}}$	-55~150	$^{\circ}$	

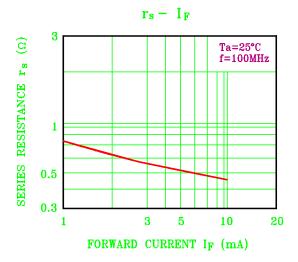
Note: \*Unit Rating. Total Rating=Unit Rating x 1.5

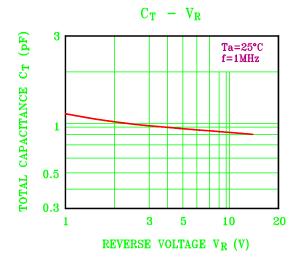


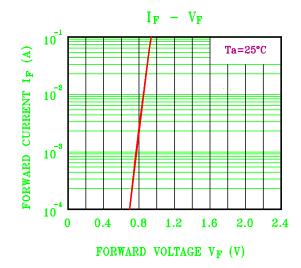


# ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{\mathrm{F}(1)}$	I <sub>F</sub> =1mA	-	0.60	-	
	$V_{\mathrm{F}(2)}$	I <sub>F</sub> =10mA	_	0.72	-	V
	$V_{\mathrm{F(3)}}$	I <sub>F</sub> =100mA	-	0.90	1.20	
Reverse Current	$I_{ m R}$	$V_R$ =80 $V$	-	-	0.5	μΑ
Total Capacitance	$C_{\mathrm{T}}$	$V_R$ =0, f=1MHz	-	0.9	3.0	pF
Reverse Recovery Time	$t_{rr}$	I <sub>F</sub> =10mA	-	1.6	4.0	nS







Revision No: 0