

## SURFACE MOUNT STEP RECOVERY DIODE

### DESCRIPTION:

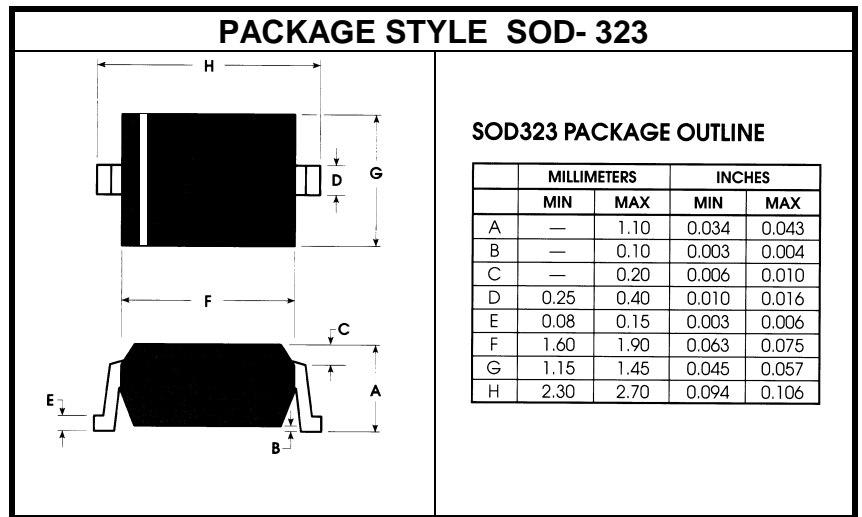
The **ASRD 800** Series of Step Recovery Diodes are Designed for Synthesiser and Sampler Applications Requiring a High Performance to Cost Ratio.

### FEATURES INCLUDE:

- Transition Time as Low as **70 pS**
- Surface Mount **SOD323** Package

### MAXIMUM RATINGS

<b>I<sub>F</sub></b>	50 mA
<b>V<sub>R</sub></b>	UP TO RATED V <sub>BR</sub>
<b>P<sub>DISS</sub></b>	100 mW
<b>T<sub>J</sub></b>	-55 to +150 °C
<b>T<sub>STG</sub></b>	-55 to +150 °C
<b>θ<sub>JC</sub></b>	1.25 °C /mW



### STATIC ELECTRICAL CHARACTERISTICS T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>V<sub>BR</sub></b>	I <sub>R</sub> = 10 μA	ASRD 803		15			<b>V</b>
		ASRD 806		20			
		ASRD 808		25			
		ASRD 814		40			
		ASRD 820		50			
		ASRD 830		60			
<b>C<sub>J6</sub></b>	V <sub>R</sub> = 6 V	f = 1 MHz	ASRD 803	0.2		0.4	<b>pF</b>
			ASRD 806	0.4		0.8	
			ASRD 808	0.5		1.0	
			ASRD 814	1.0		1.7	
			ASRD 820	1.5		2.5	
			ASRD 830	2.5		3.5	



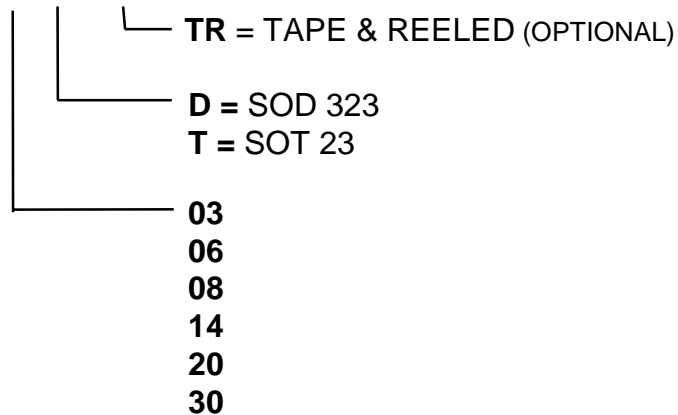
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### DYNAMIC ELECTRICAL CHARACTERISTICS $T_C = 25\text{ }^\circ\text{C}$

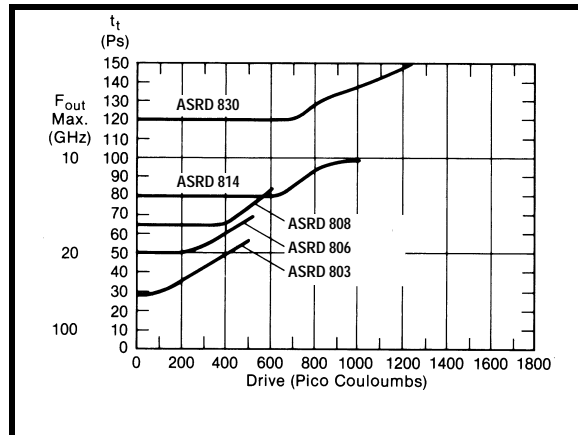
SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$\tau$	$I_F = 10\text{ mA}$	$I_R = 6\text{ mA}$	ASRD 803	8	10		nS
			ASRD 806	10	12		
			ASRD 808	25	30		
			ASRD 814	45	60		
			ASRD 820	55	70		
			ASRD 830	80	100		
			$T_t$	$V_R = 7\text{ V}$	$I_F = 3\text{ mA}$	ASRD 803	
ASRD 806		85				100	
ASRD 808		90				110	
ASRD 814		110				135	
ASRD 820		200				250	
ASRD 830		250				300	

### ORDERING INFORMATION:

### ASRD 8XXX-XX



## SURFACE MOUNT STEP RECOVERY DIODE



**PACKAGE STYLE SOT-23**

1 = Anode 2 = NC 3 = Cathode

**SOT23 PACKAGE OUTLINE**

	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.79	1.02	.031	.040
A <sub>1</sub>	0.02	0.10	.001	.004
C	2.67	3.05	.105	.120
E	1.80	2.00	.071	.079
F	0.38	0.54	.01	.021
G	2.10	2.50	.083	.098
H	1.20	1.40	.047	.055
I	0.13	0.25	.005	.010
J	0.089	0.15	.0035	.0059
K	0.44	0.55	.017	.022
∅	0	8	0	0