

## SURFACE MOUNT STEP RECOVERY DIODE

### DESCRIPTION:

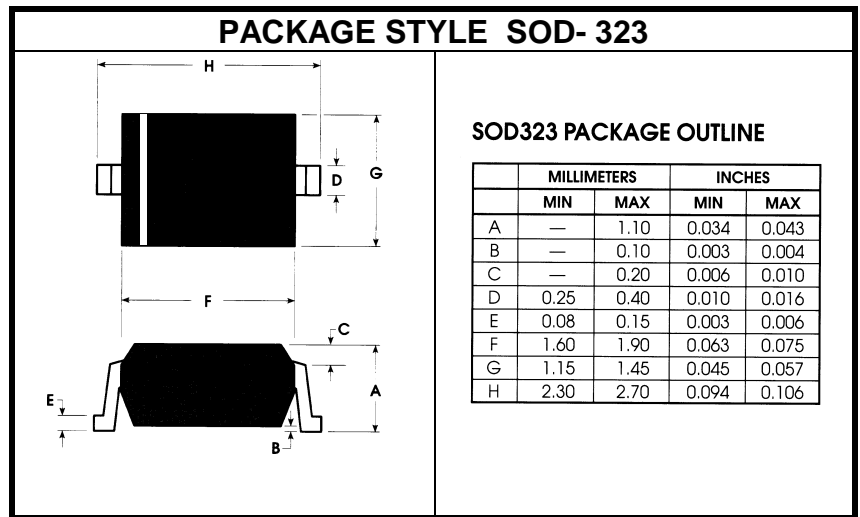
The **ASRD 800** Series of Step Recovery Diodes are Designed for Synthesiser and Sampler Applications Requiring a High Performance to Cost Ratio.

### FEATURES INCLUDE:

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

### MAXIMUM RATINGS

$I_F$	50 mA
$V_R$	UP TO RATED $V_{BR}$
$P_{DISS}$	100 mW
$T_J$	-55 to +150 °C
$T_{STG}$	-55 to +150 °C
$\theta_{JC}$	1.25 °C /mW



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

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{BR}$	$I_R = 10\text{ }\mu\text{A}$		ASRD 803	15			V
			ASRD 806	20			
			ASRD 808	25			
			ASRD 814	40			
			ASRD 820	50			
			ASRD 830	60			
$C_{J6}$	$V_R = 6\text{ V}$	$f = 1\text{ MHz}$	ASRD 803	0.2		0.4	pF
			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	



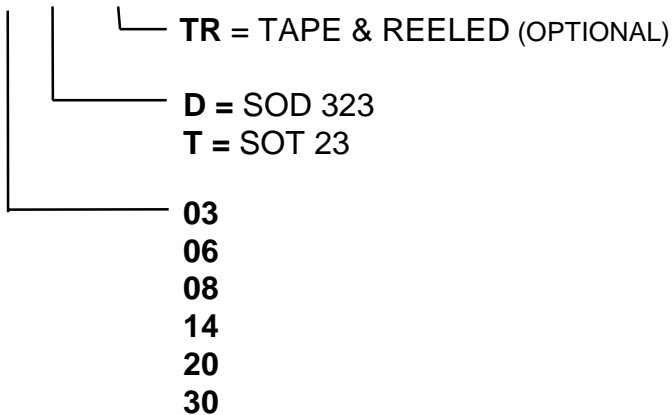
## SURFACE MOUNT STEP RECOVERY DIODE

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

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		70	85	pS
			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**



ADVANCED SEMICONDUCTOR, INC.

7525 ETHEL AVENUE • NORTH HOLLYWOOD, CA 91605 • (818) 982-1202 • FAX (818) 765-3004

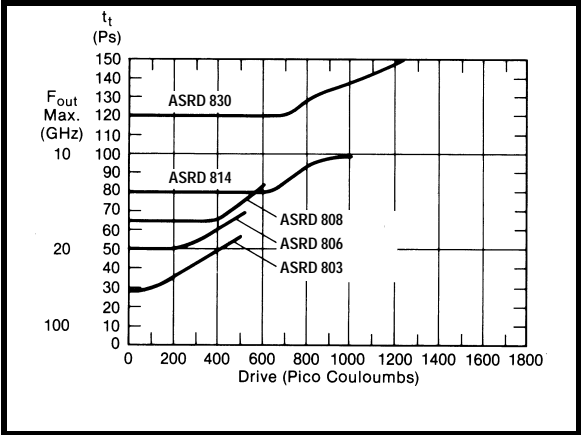
REV. A

2/3

*Specifications are subject to change without notice.*



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
Ø	0	8	0	0