

SURFACE MOUNT STEP RECOVERY DIODE

DESCRIPTION:

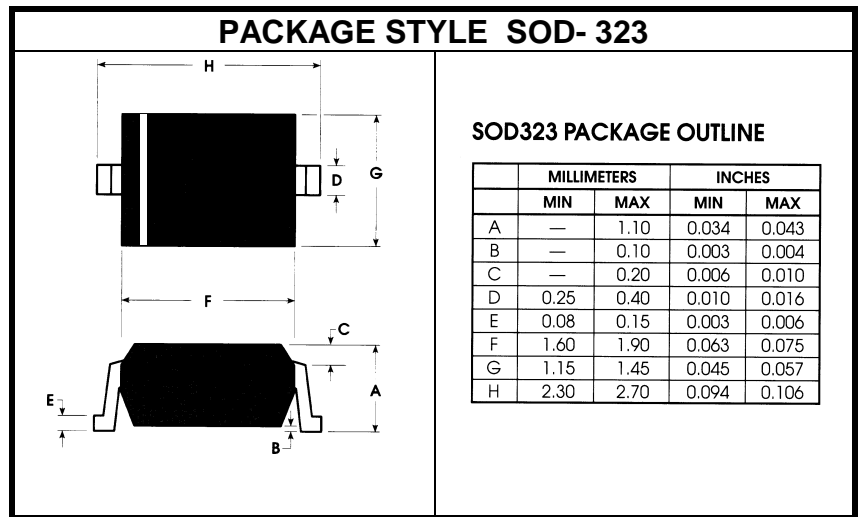
The **ASRD 800** Series of Step Recovery Diodes are Designed for Synthesiser and Sampler Applications Requiring a High Performance to Cost Ratio.

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
θ_{JC}	1.25 °C /mW



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

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
V_{BR}	$I_R = 10\ \mu\text{A}$	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	



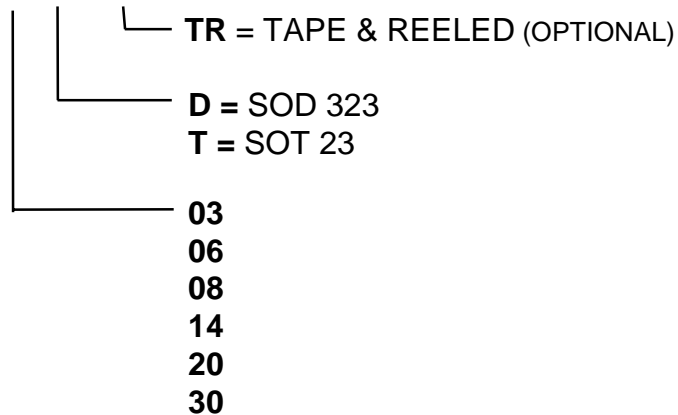
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DYNAMIC ELECTRICAL CHARACTERISTICS $T_C = 25\text{ }^\circ\text{C}$

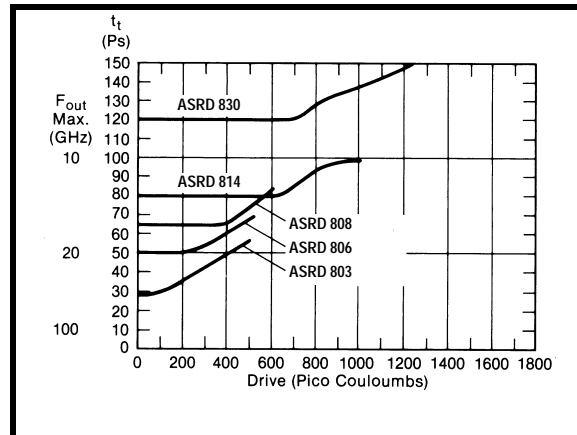
SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
τ	$I_F = 10\text{ mA}$	$I_R = 6\text{ mA}$	ASRD 803	8	10		nS
			ASRD 806	10	12		
			ASRD 808	25	30		
			ASRD 814	45	60		
			ASRD 820	55	70		
			ASRD 830	80	100		
			T_t	$V_R = 7\text{ V}$	$I_F = 3\text{ mA}$	ASRD 803	
ASRD 806		85				100	
ASRD 808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

ORDERING INFORMATION:

ASRD 8XXX-XX



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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 ₁	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