

Discrete POWER & Signal Technologies

ES2A - ES2D

Features

- For surface mount applications.
- · Glass passivated junction.
- Low profile package.
- · Easy pick and place.
- Built-in strain relief.
- Superfast recovery times for high efficiency.



SMB/DO-214AA
COLOR BAND DENOTES CATHODE

0.185 (4.699) 0.160 (4.064) 0.075 (1.905) 2 1 0.155 (3.937) 0.130 (3.302) 0.220 (5.588) 0.200 (5.080) 0.096 (2.438) 0.083 (2.108) 0.096 (2.438) 0.083 (2.108) 0.090 (0.203) 0.030 (0.762) 0.008 (0.103) 0.006 (0.152)

2.0 Ampere Superfast Rectifiers

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
lo	Average Rectified Current .375 " lead length @ T _A = 110°C	2.0	А	
İf(surge)	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	50	A	
P _D	Total Device Dissipation Derate above 25°C	1.66 13.3	W mW/°C	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient**	75	°C/W	
R _{θJL}	Thermal Resistance, Junction to Lead**	20	°C/W	
T _{stg}	Storage Temperature Range	-50 to +150	°C	
TJ	Operating Junction Temperature	-50 to +150	°C	

^{*}These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

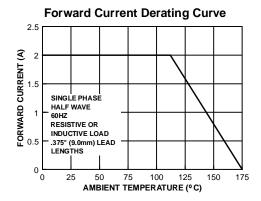
Electrical Characteristics T_A = 25°

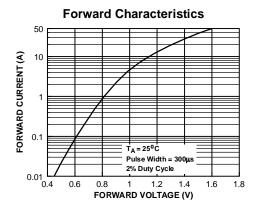
T_A = 25°C unless otherwise noted

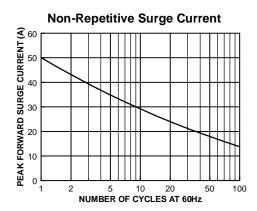
Parameter	Device			Units	
	2A	2B	2C	2D	
Peak Repetitive Reverse Voltage	50	100	150	200	V
Maximum RMS Voltage	35	70	105	140	V
DC Reverse Voltage (Rated V _R)	50	100	150	200	V
Maximum Reverse Current		•	•	•	
@ rated V_R $T_A = 25^{\circ}C$		10)		μΑ
T _A = 100°C		35	0		μA
Maximum Reverse Recovery Time	20			nS	
$I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{RR} = 0.25 \text{ A}$					
Maximum Forward Voltage @ 2.0 A	0.90				V
Typical Junction Capacitance		18	3		pF
V _R = 4.0 V, f = 1.0 MHz					

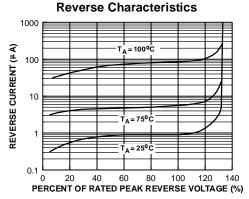
^{**}Device mounted on FR-4 PCB 0.013 mm.

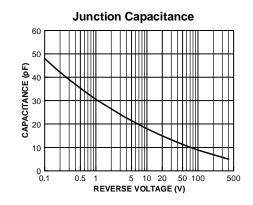
Typical Characteristics

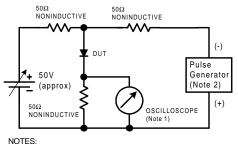


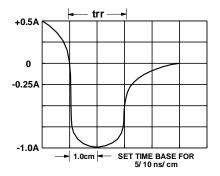












- 1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf. 2. Rise time = 10 ns max; Source impedance = 50 ohms.

Reverse Recovery Time Characterstic and Test Circuit Diagram

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FACTTM QSTM

FACT Quiet Series $^{\text{TM}}$ Quiet Series $^{\text{TM}}$ SuperSOT $^{\text{TM}}$ -3 SuperSOT $^{\text{TM}}$ -6 GTO $^{\text{TM}}$ SuperSOT $^{\text{TM}}$ -8 HiSeC $^{\text{TM}}$ TinyLogic $^{\text{TM}}$

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