

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

Fast Rectifiers

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	Value				Units
		2A	2B	2C	2D	Oilits
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	150	200	V
I _{F(AV)}	Average Rectified Forward Current .375 " lead length @ T _A = 110°C	2.0		А		
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave 50		А			
T _{stg}	Storage Temperature Range	-55 to +150		°C		
T _J	Operating Junction Temperature	-55 to +150		°C		

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

Thermal Characteristics

Symbol	Parameter	Value	Units
P _D	Power Dissipation	1.66	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient*	75	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead*	20	°C/W

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

Electrical Characteristics $T_A = 25$ °C unless otherwise noted

Symbol Parameter			Device			Units	
			2A	2B	2C	2D	
V _F	Forward Voltage @ 2.0 A		0.90				V
t _{rr}	Reverse Recovery Time $I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{RR} = 0.25 \text{ A}$		20			ns	
I _R	Reverse Current @ rated V _R	$T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$		10 35			μA μA
Ст	Total Capacitance V _R = 4.0 V, f = 1.0 MHz			18	3		pF

Typical Characteristics

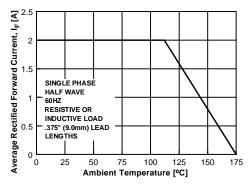


Figure 1. Forward Current Derating Curve

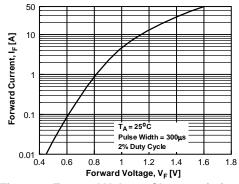


Figure 2. Forward Voltage Characteristics

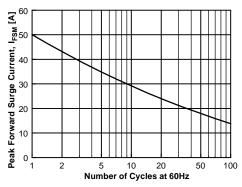


Figure 3. Non-Repetitive Surge Current

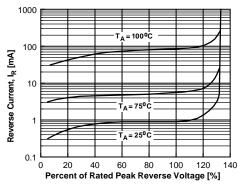


Figure 4. Reverse Current vs Reverse Voltage

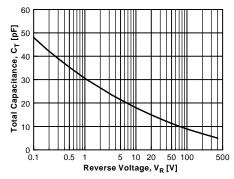
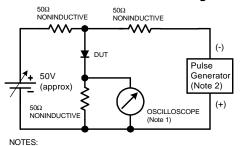
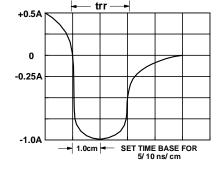


Figure 5. Total Capacitance



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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