

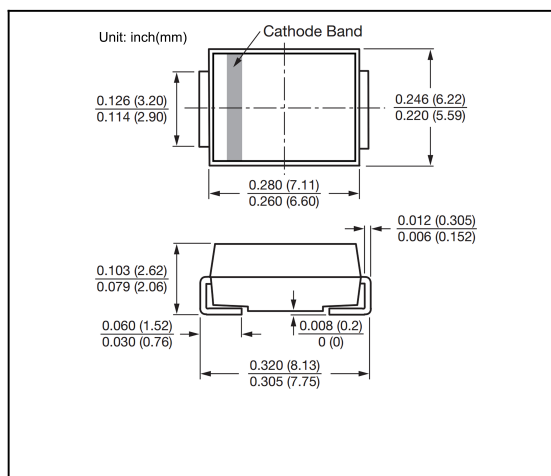
## DO-214AB(SMC) Plastic-Encapsulate Diodes

### ES5A-ES5J

5 Amps Surface Mount Superfast Recovery Rectifiers

#### Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time



Maximum Ratings\* ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

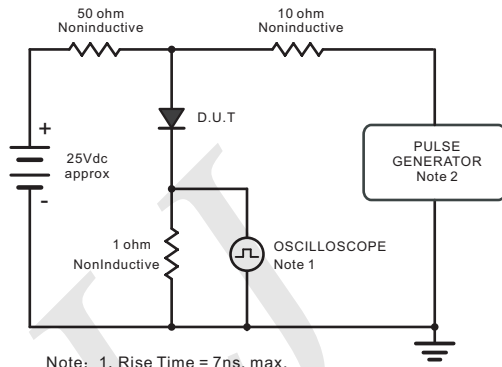
Symbol	Parameter	Value							Units
		5A	5B	5C	5D	5E	5G	5J	
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
$V_{RMS}$	Maximum RMS voltage	35	70	105	140	210	280	420	V
$V_{DC}$	Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
$I_{F(AV)}$	Average Rectified Forward Current.375 " lead length @ $T_A = 100^\circ\text{C}$	5							A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	120							A
$V_F$	Maximum Forward Voltage at 3 A	1		1.25			1.68		V
$I_R$	Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ Rated DC Reverse Voltage $T_A = 125^\circ\text{C}$	5 100							$\mu\text{A}$
$C_J$	Typical Junction Capacitance at $V_R=4\text{V}$ , $f=1\text{MHz}$	50							pF
$t_{rr}$	Maximum Reverse Recovery Time <sup>1)</sup>	35							nS
$R_{\theta JA}$ $R_{\theta JC}$	Typical Thermal Resistance <sup>2)</sup>	35 13							$^\circ\text{C/W}$
$T_J, T_{stg}$	Operating and Storage Temperature Range	-55~ +150							$^\circ\text{C}$

#### Notes:

1.Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$

2.P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad area.

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.  
Input Impedance = 1 megohm, 22pF.  
2. Rise Time = 10ns, max.  
Source Impedance = 50 ohms.

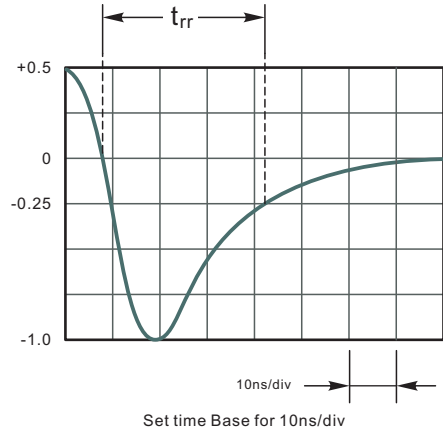


Fig.2 Maximum Average Forward Current Rating

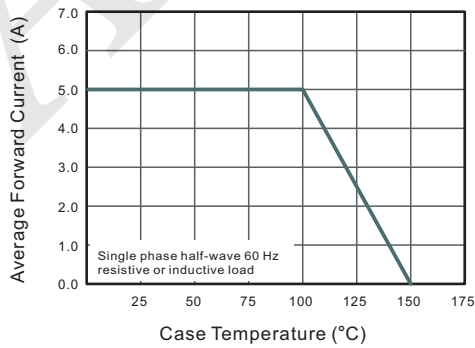


Fig.3 Typical Reverse Characteristics

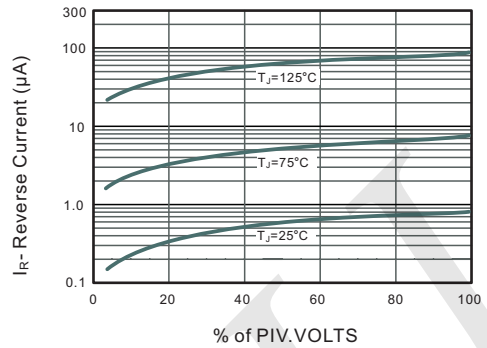


Fig.4 Typical Forward Characteristics

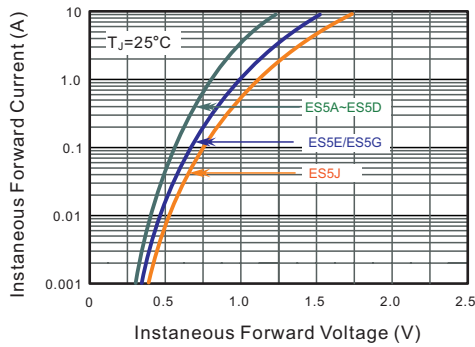


Fig.5 Typical Junction Capacitance

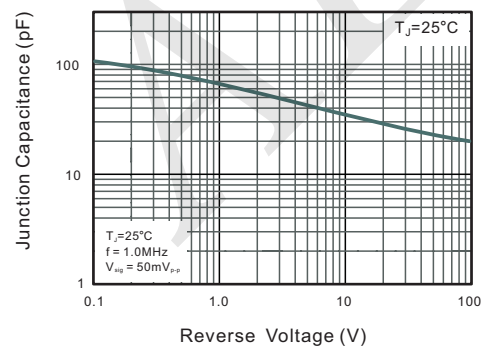


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

