

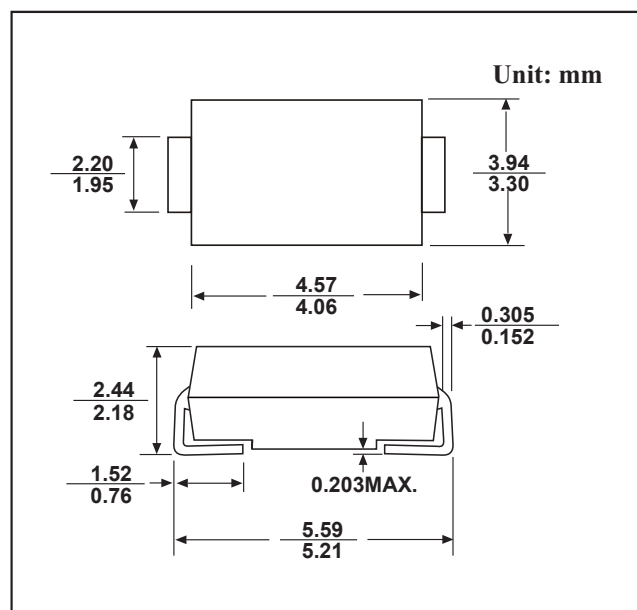
SMB Ultra-Fast Recovery Rectifier Diodes

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Superfast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SMB molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter		Symbol	ES5A	ES5B	ES5C	ES5D	ES5E	ES5G	ES5J	UNITS
Maximum recurrent peak reverse voltage		V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage		V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage		V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at T _A =55℃		I _{F(AV)}	5.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	100.0							A
Maximum Instantaneous Forward Voltage at 5.0A		V _F	1.0				1.25		1.7	V
Maximum reverse current at rated DC blocking voltage	@T _A =25℃	I _R	5.0							μ A
	@T _A =125℃		100.0							
Maximum reverse recovery time (Note1)		t _{rr}	35.0							ns
Typical Junction Capacitance at VR=4V, f=1MHz		C _J	50.0							pF
Typical thermal resistance(Note2)		R _{θJA}	40.0							℃/W
		R _{θJC}	15							
Operating and Storage Temperature Range		T _j , T _{slg}	-55 ~ +150							℃

Note: 1.Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

2.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

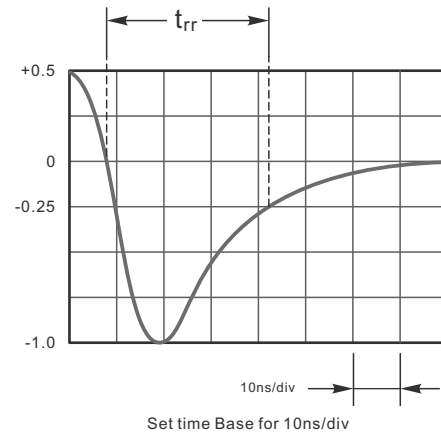
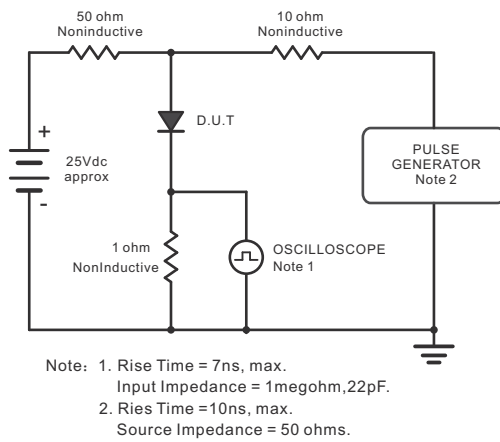


Fig.2 Maximum Average Forward Current Rating

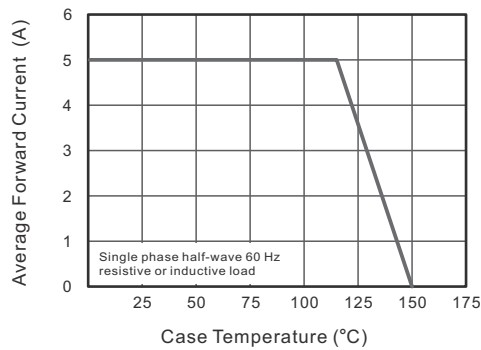


Fig.3 Typical Reverse Characteristics

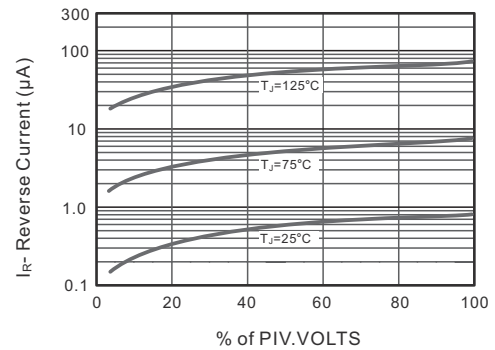


Fig.4 Typical Forward Characteristics

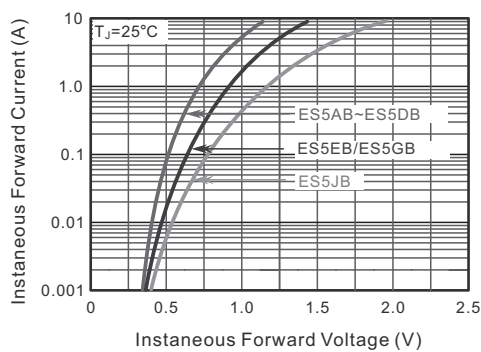


Fig.5 Typical Junction Capacitance

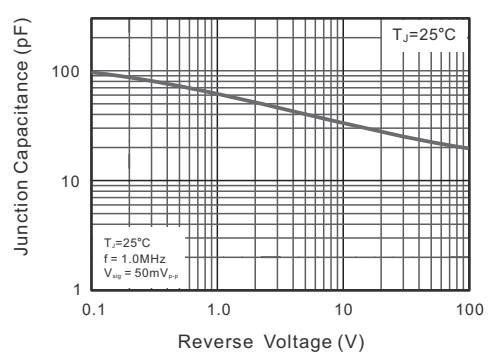


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

