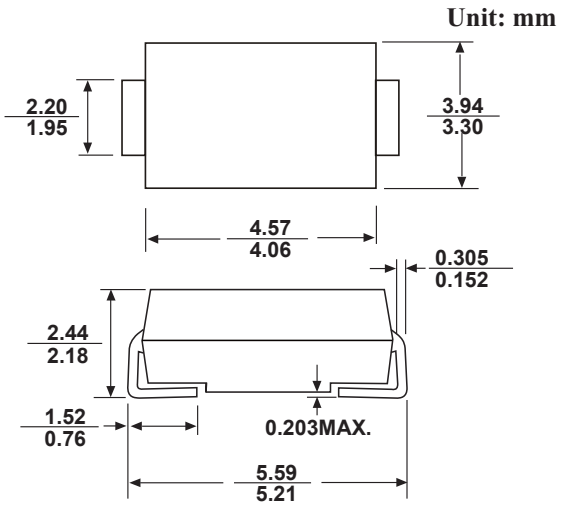
SMB PLASTIC SILICON RECTIFIERS

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)

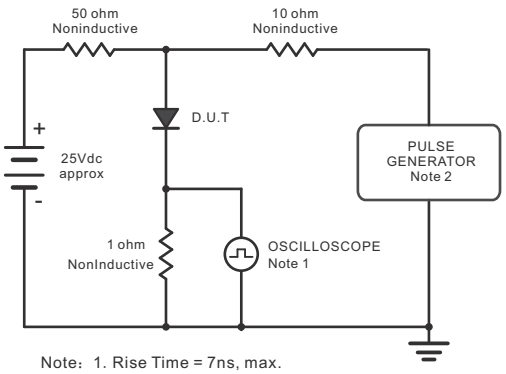
		ES5A	ES5B	ES5C	ES5D	ES5E	ES5G	ES5J	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length 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							μA
Maximum reverse current at rated DC blocking voltage @T_A=125℃	I_R	100.0							μA
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)	$R_{\theta JA}$	40.0							℃/W
	$R_{\theta JC}$	15							℃/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							℃

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

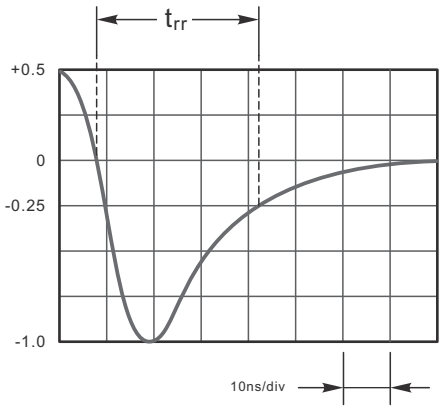
2.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

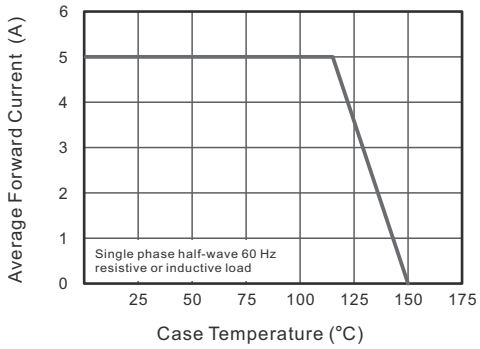


Fig.3 Typical Reverse Characteristics

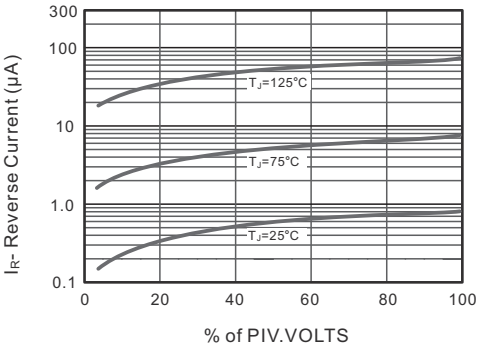


Fig.4 Typical Forward Characteristics

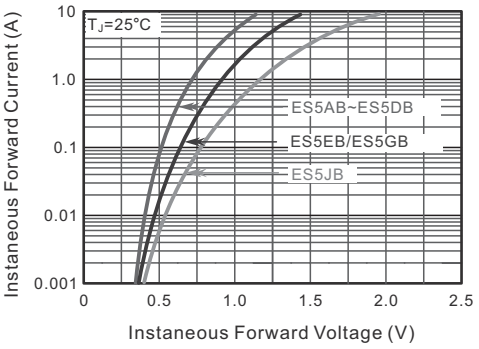


Fig.5 Typical Junction Capacitance

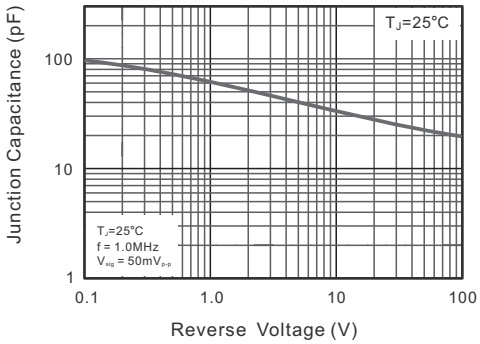


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current