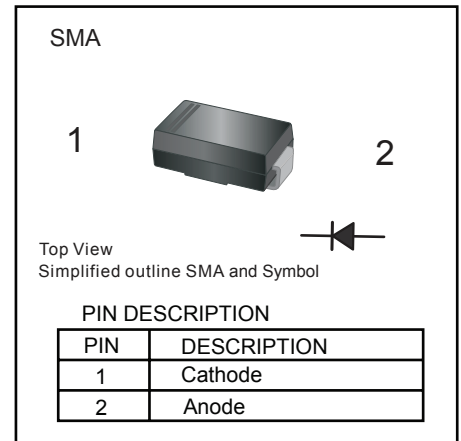


Super-Fast Rectifier

ES3A ~ ES3D

■ Features

- Glass Passivated Die Construction
- Super-Fast Recovery Time For High Efficiency
- Surge Overload Rating to 100A Peak
- Ideally Suited for Automated Assembly



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	ES3A	ES3B	ES3C	ES3D	Unit
Peak Repetitive Reverse Voltage	VRRM	50	100	150	200	V
Working Peak Reverse Voltage	VRWM					
DC Blocking Voltage	VDC					
RMS Reverse Voltage	VR(RMS)	35	70	105	140	
Averaged Rectified Output Current @T _T =100°C	I _O	3.0				A
Peak Forward Surge Current 8.3ms	I _{FSM}	100				
Forward Voltage @T _F =3A	V _{FM}	0.9				V
Peak Reverse Current @T _A =25°C	I _{RM}	10				μA
at Rated DC Blocking Voltage @ T _A =125°C		500				
Typical Total Capacitance *1	C _T	45				pF
Maximum Reverse Recovery Time *2	t _{rr}	25				ns
Thermal Resistance Junction to Terminals	R _{θJT}	10				°C/W
Thermal Resistance Junction to Ambient *3	R _{θJA}	50				
Junction Temperature	T _J	150				°C
Storage Temperature	T _{STG}	-65 to 150				

*1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

*2. Measured with I_F= 0.5A, I_R=1.0A, I_{rr} = 0.25A, See Figure 5.

*3. Unit mounted on PC board with 5.0 mm (0.013 mm thick) copper pads as heat sink.

■ Marking

NO.	ES3A	ES3B	ES3C	ES3D
Marking	ES3A	ES3B	ES3C	ES3D

Super-Fast Rectifier

ES3A ~ ES3D

Typical Characteristics

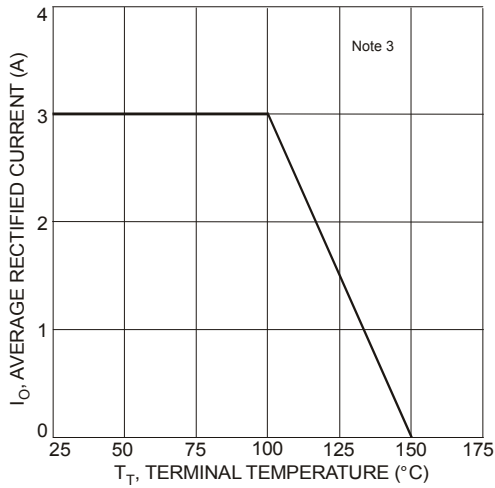


Fig. 1 Forward Current Derating Curve

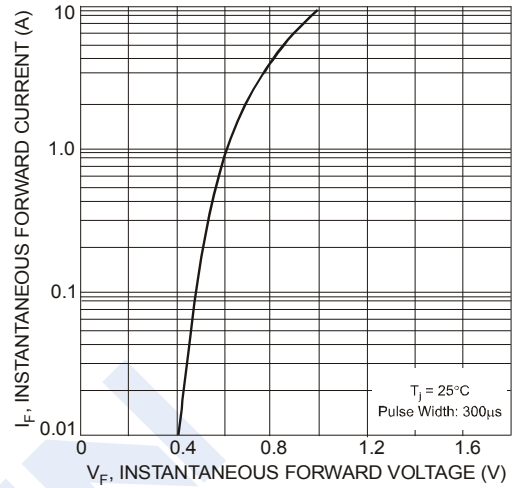


Fig. 2 Typical Forward Characteristics

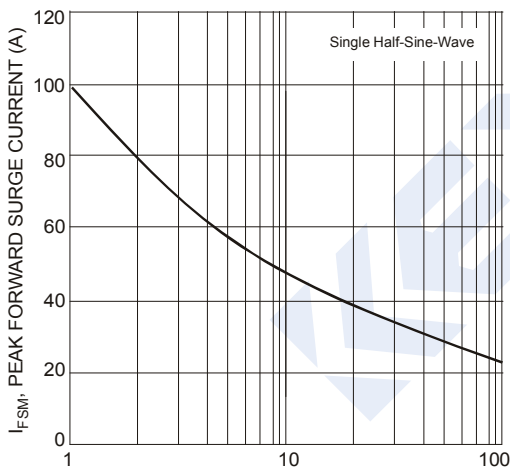


Fig. 3 Surge Current Derating Curve

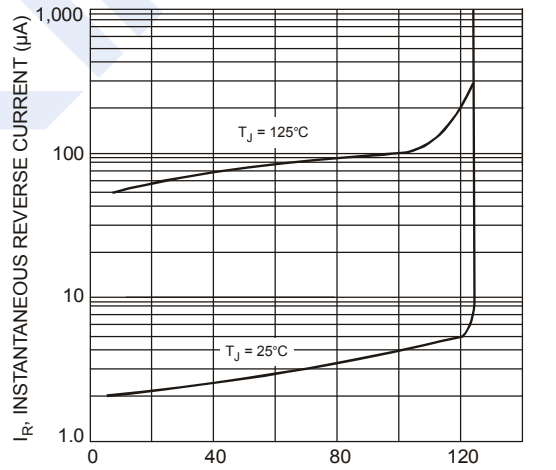
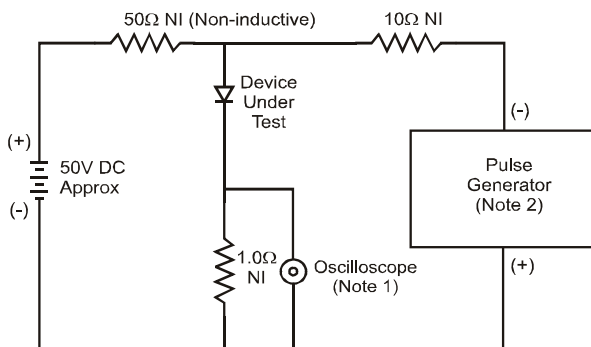
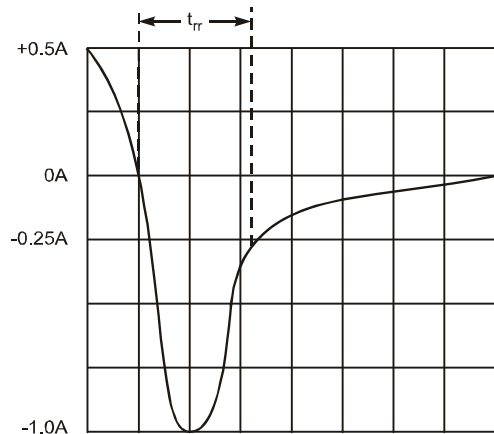


Fig. 4 Typical Reverse Characteristics



- Notes:
 1. Rise Time = 7.0ns max. Input Impedance = 1.0M Ω , 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50 Ω .



Set time base for 50/100 ns/cm

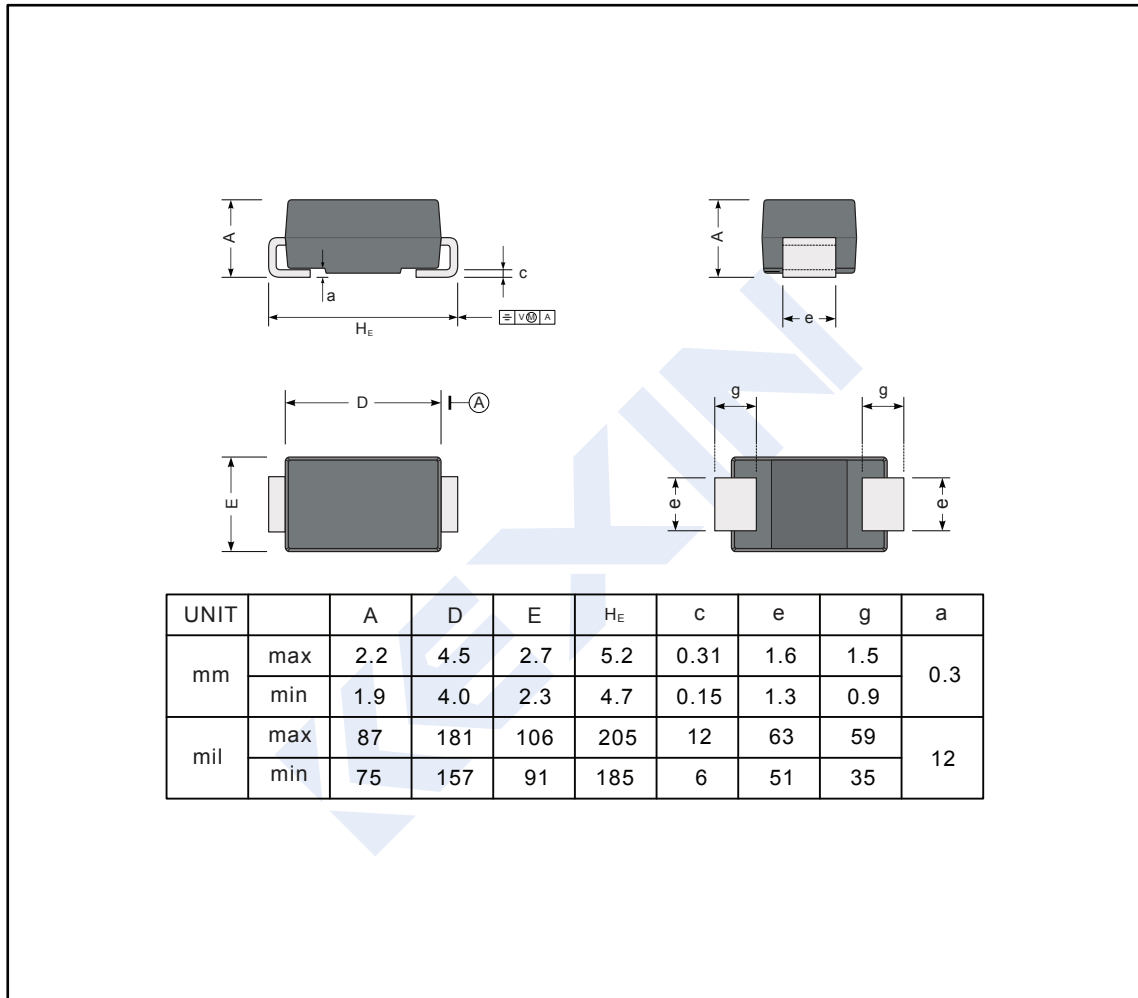
Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

Super-Fast Rectifier ES3A ~ ES3D

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



■ The recommended mounting pad size

