GENERAL SEMICONDUCTOR®

ES07B thru ES07D

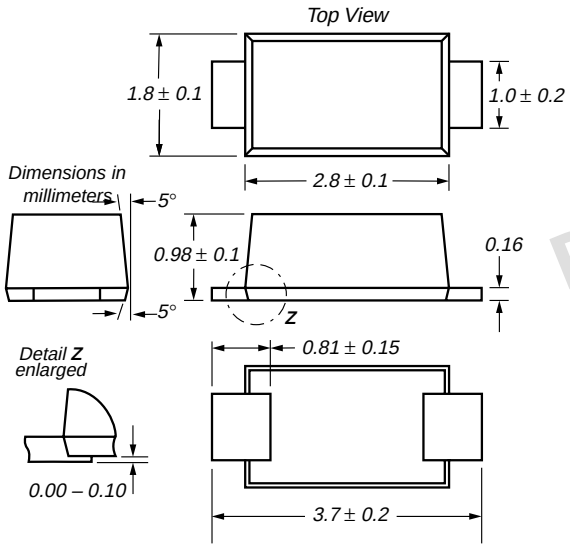
Small Surface Mount Ultrafast Rectifiers

Forward Current 0.7A
Reverse Voltage 100 to 200V

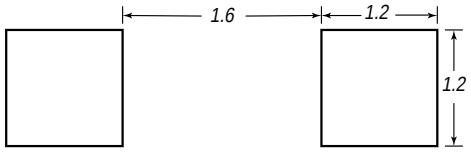


DO-219 (SMF)

Patented
Preliminary



Mounting Pad Layout



Mechanical Data

Case: SMF Plastic Case
Polarity: Color band denotes cathode end
Weight: approx. 0.01g
Packaging codes/options: TBD

Features

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- High temperature soldering: 250°C/10 seconds at terminals

Maximum Ratings and Thermal Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	ES07B	ES07D	Unit
Device marking code		EB	ED	
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	V
Maximum RMS voltage	V_{RMS}	70	140	V
Maximum DC blocking voltage	V_{DC}	100	200	V
Maximum average forward rectified current	$I_{F(AV)}$	0.7		A
Peak forward surge current 8.3ms single half sine-wave T_L = 25°C	I_{FSM}	30		A
Typical thermal resistance (on ceramic substrate) (on epoxy substrate)	$R_{\theta JA}$	55 120		°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +125		°C

Electrical Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	0.98	V
Maximum DC reverse current T_A = 25°C at Rated DC blocking voltage T_A = 100°C	I_R	10 50	μA mA
Typical reverse recovery time at I_F=0.5A, I_R=1.0A, I_{rr}=0.25A	t_{rr}	25	ns
Typical capacitance at 4V, 1 MHz	C_J	TBD	pf

11/6/00