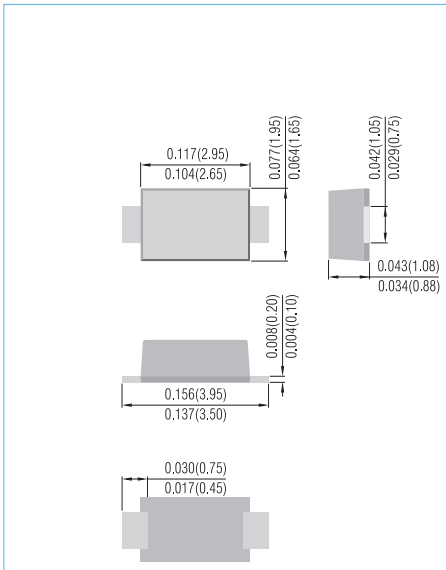
ES1001FL~ES1002FL

GM GarboMicro Semiconductor

SMALL SURFACE MOUNT ULTRAFAST DIODES

VOLTAGE 100 to 200 Volts **CURRENT** 1.0 Amperes

SOD-123FL/DO-219AB Unit: inch (mm)



FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass Passivated
- High temperature soldering : 26°C / 10 seconds at terminals
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

- Case: JEDEC DO-219AB, Molded plastic over passivated junction.
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes positive end (cathode)
- Standard Packaging : 8mm tape (EIA-481)
- Approx. Weight: 0.0168 gram

MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	Test condition	Symbol	ES1001FL	ES1002FL	UNITS
Maximum repetitve 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	T_{tp}=105°C T_A=65°C	$I_{F(AV)}$	1.2 0.5		A
Peak forward surge current 8.3ms single half sine-wave	T_L=25°C	I_{FSM}	16.5		A
Operating junction and storage temperature range		T_J ,T_{STG}	-50 to +150		°C

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	Test condition	Symbol	ES1001FL	ES1002FL	UNITS
Maximum instantaneous forward voltage	1.0A	V_F	0.95		V
Maximum DC reverse current at rated DC blocking voltage	T_A=25°C T_A=100°C	I_R	10 50		uA
Reverse recovery time	I_F=0.5A I_R=1A t_{rr}=0.25A	t_{rr}	35		ns
Typical capacitance	4V,1MHz	C_J	4		pF

THERMAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	Test condition	Symbol	ES1001FL	ES1002FL	UNITS
Thermal resistance junction to ambient air		$R_{\theta JA}$	180		°C/W

RATING AND CHARACTERISTIC CURVES

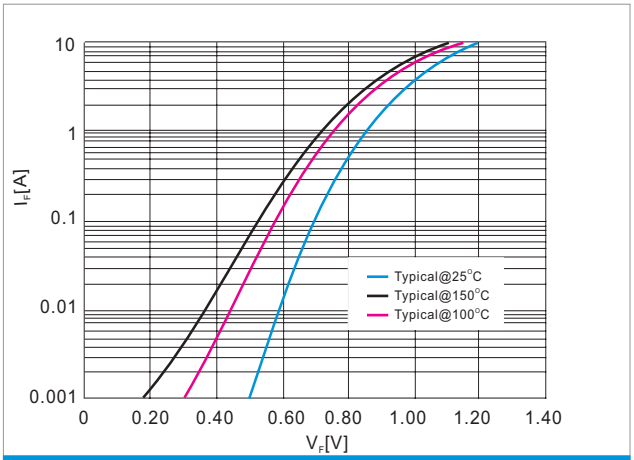


Fig.1-Typical forward characteristics

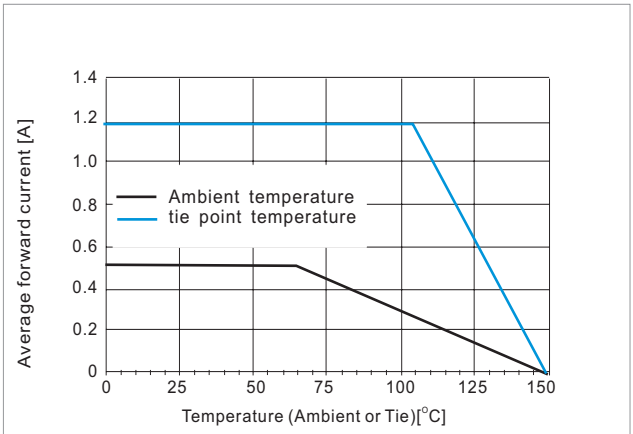


Fig.2-Forward current derating curve

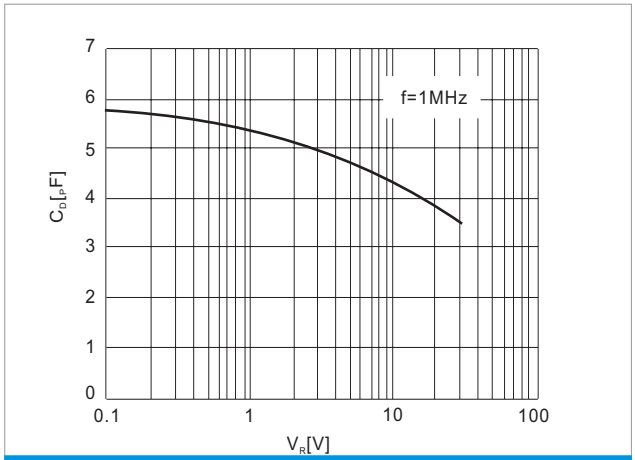


Fig.3-Typ. diode capacitance vs. Reverse voltage

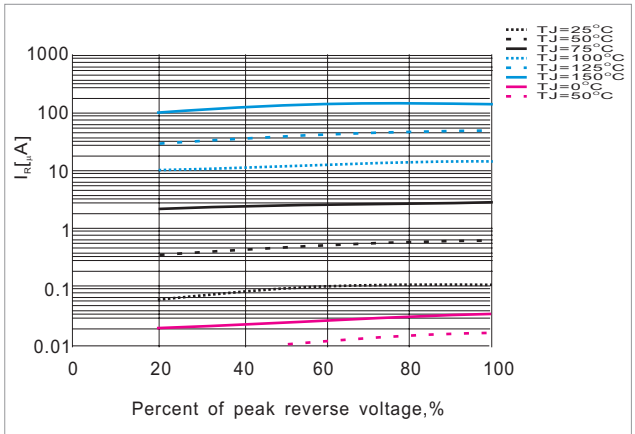


Fig.4-Typical reverse characteristics