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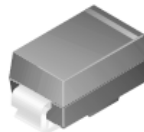


ES1F - ES1J

Fast Rectifiers

Features

- For surface mount applications.
- Glass passivated junction.
- Low profile package.
- Easy pick and place.
- Built-in strain relief.
- Superfast recovery times for high efficiency.



SMA(DO-214AC)
Color Band Denotes Cathode

Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

Symbol	Parameter	Value				Units
		ES1F	ES1G	ES1H	ES1J	
V _{RRM}	Maximum Repetitive Reverse Voltage	300	400	500	600	V
I _{F(AV)}	Average Rectified Forward Current	1.0				A
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave (JEDEC method)	30				A
T _J	Junction Temperature	150				°C
T _{STG}	Storage Temperature Range	-55 to 150				°C
P _D	Power Dissipation	1.47				W

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
R _{θJA}	Thermal Resistance, Junction to Ambient *	85	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead *	35	°C/W

* P. C. B mounted on 0.2" x 0.2" (5 x 5 mm) copper Pad Area.

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Value		Units
V _F	Maximum Forward Voltage @ I _F = 1.0 A	1.3	1.7	V
T _{rr}	Maximum Reverse Recovery Time I _F = 0.5 A, I _R = 1.0 A, I _{RR} = 0.25 A	35		ns
I _R	Maximum Reverse Current @ rated V _R <small>T_A = 25°C T_A = 100°C</small>	5.0	100	uA
C _j	Typical Junction Capacitance V _R = 4.0 V, f = 1.0 MHz	10.0	8.0	pF

Typical Performance Characteristics

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

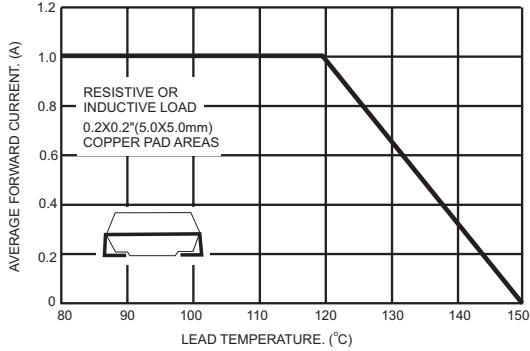


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

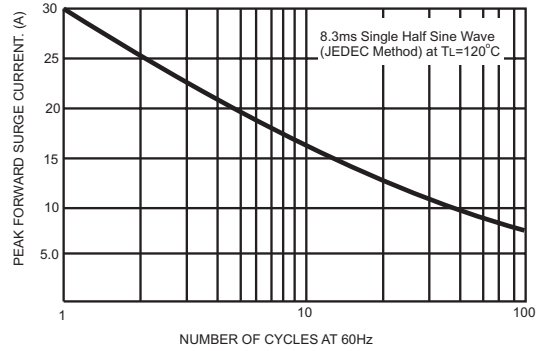


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

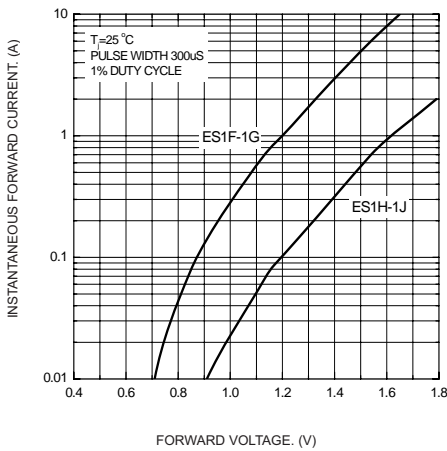


FIG.4- TYPICAL REVERSE CHARACTERISTICS

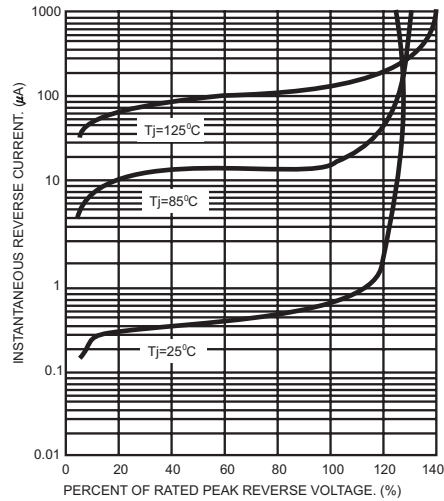
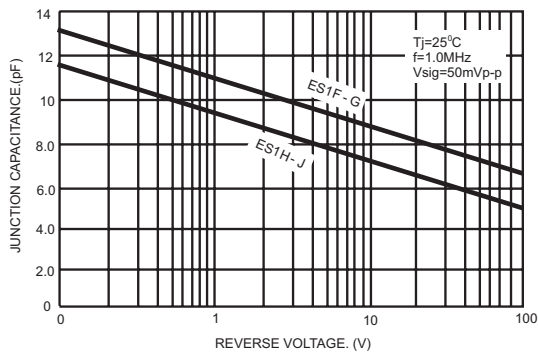
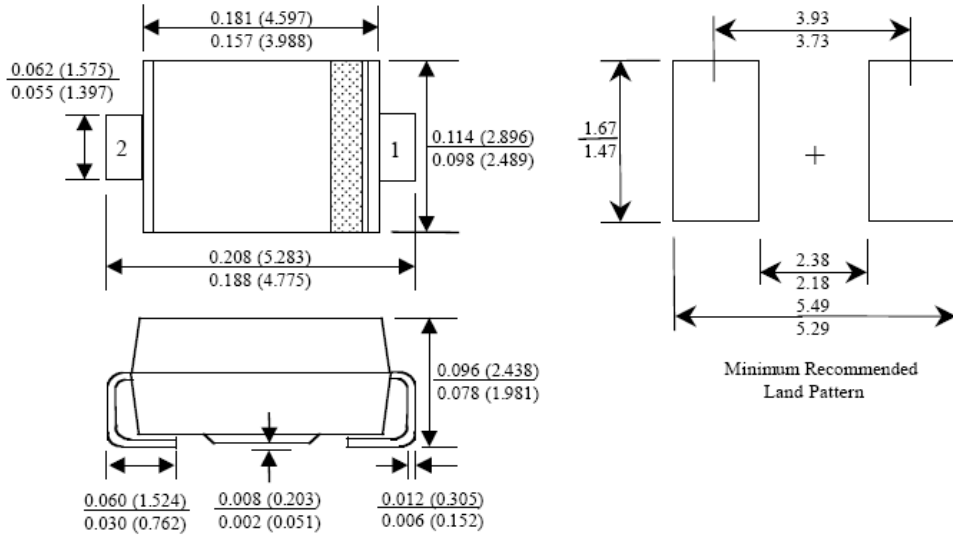


FIG.5- TYPICAL JUNCTION CAPACITANCE



Package Dimensions

SMA / DO - 214AC



Dimensions in Millimeters



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