

Power Diode

Ultra Fast Recovery

multicomp PRO

**RoHS
Compliant**



Features

- Glass passivated junction chip
- For surface mounted application
- Low profile package
- Built-in strain relief
- Ideal for automated placement
- Easy pick and place
- Superfast recovery time for high efficiency
- High temperature soldering : 250°C / 10 seconds at terminals

Mechanical Data

Case : Moulded plastic
 Terminals : Solder plated
 Polarity : Indicated by cathode band

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Characteristics	Symbol	ES1B+	ES1D+	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	100	200	V
Max. RMS Voltage	V_{RMS}	70	140	
Max. DC Blocking Voltage	V_{DC}	100	200	
Max. Average Forward Rectified Current	$I_{(AV)}$	1		A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30		
Max. Instantaneous Forward Voltage at 1 A	V_F	0.95		V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	5 100		μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	35		nS
Typical Junction Capacitance (Note 2)	C_J	10		pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$ $R_{\theta JA}$	85 35		$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}			

Notes : 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$
 2. Measured at 1MHz and applied $V_R = 4\text{V}$
 3. PCB mounted on 0.2 x 0.2 inches (5 x 5 mm) copper pad area

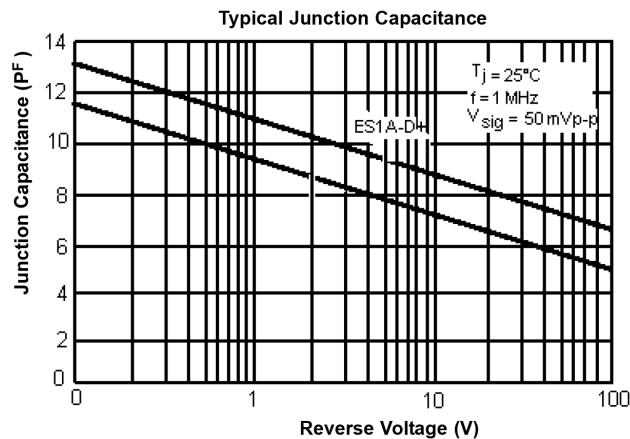
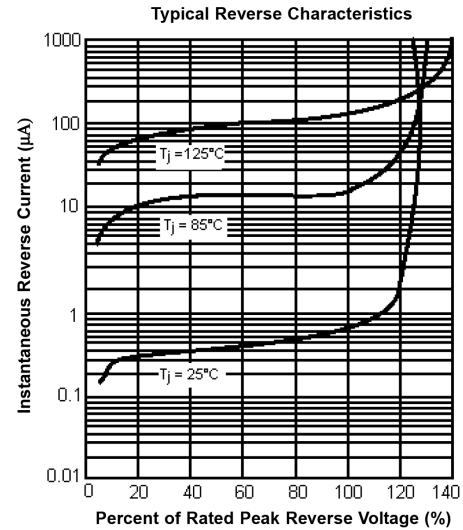
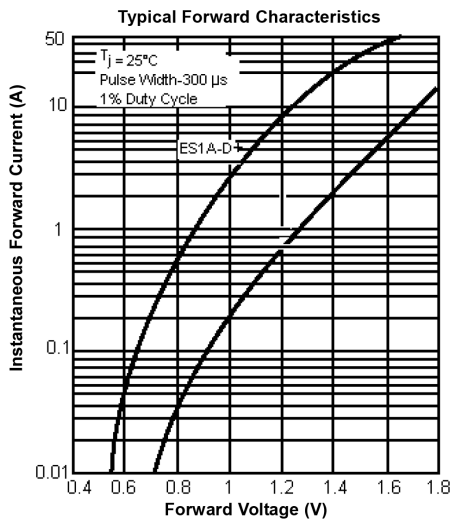
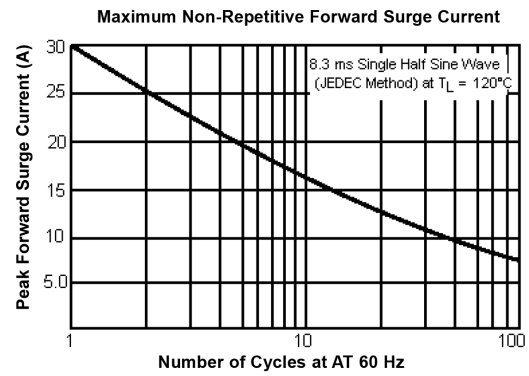
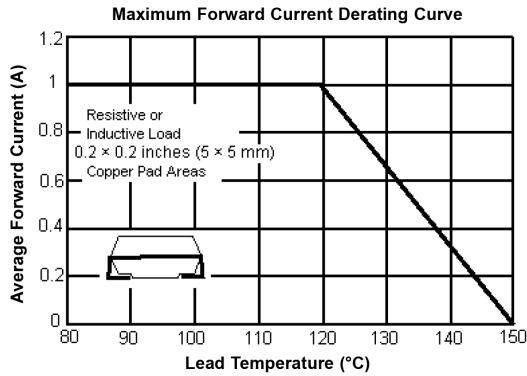
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Ratings and Characteristic Curves



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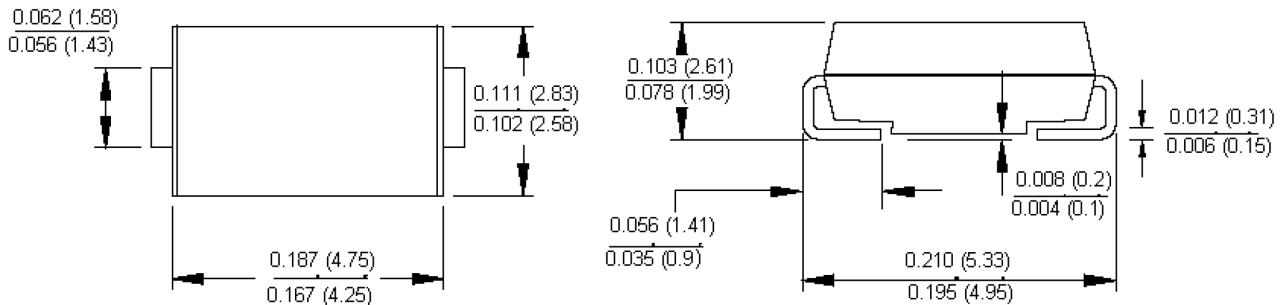
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Specification Table

$I_{F(AV)}$ (A)	V_{RRM} (V)	I_{FSM} (A)	t_{rr} Maximum (ns)	V_F (V) at $I_F = 1$ A	Package	Part Number
1	100	30	35	0.95	DO -214 AC (SMA)	ES1B+
	200					ES1D+

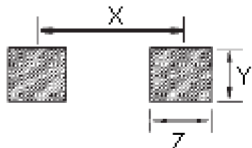
Dimensions:

SMA / DO-214AC



Dimensions : Inches (Millimetres)

Foot Print



Dimensions

Length	Width	Depth	X	Y	Z
5.33mm	2.83mm	2.61mm	4.1mm	1.7mm	1.8mm

Part Number Table

Description	Part Number
Ultrafast Diode, 1A, 100V	ES1B+
Ultrafast Diode, 1A, 200V	ES1D+

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