



YENYO

# EFS1A THRU EFS1J

Surface Mount Efficient Fast Recovery Rectifier

## Features

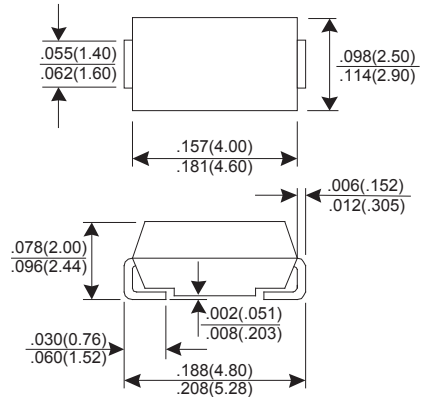
- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability
- ★ Glass passivated chip

## Mechanical Data

- ★ Case: Molded plastic SMA/DO-214AC
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750 method 2026
- ★ Polarity: Color band denotes cathode
- ★ Mounting position: Any
- ★ Weight: 0.064 gram

**Voltage Range 50 to 600 V**  
**Current 1.0 Ampere**

### SMA/DO-214AC



Dimensions in inches and (millimeters)

## 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%.

PARAMTER	SYMBOL	EFS1A	EFS1B	EFS1D	EFS1G	EFS1J	UNIT	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V	
Maximum RMS Voltage	VRMS	35	70	140	280	420	V	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V	
Maximum Average Forward Rectified Current TA=55°C	IF(AV)	1.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	30						A
Maximum Instantaneous Forward Voltage @ 1.0 A	VF	0.875			1.1	1.25	V	
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	5.0					uA	
		100					uA	
Maximum Reverse Recovery Time (Note 1)	Trr	25			35	50	nS	
Typical junction Capacitance (Note 2)	CJ	15					pF	
Typical Thermal Resistance (Note 3)	RθJA	75					°CW	
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to +150					°C	

NOTES : (1) Reverse recovery test conditions  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{rr} = 0.25A$ .  
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.  
(3) Thermal Resistance junction to ambient.

# RATINGS AND CHARACTERISTIC CURVES EFS1A THRU EFS1J

FIG.1 - FORWARD CURRENT DERATING CURVE

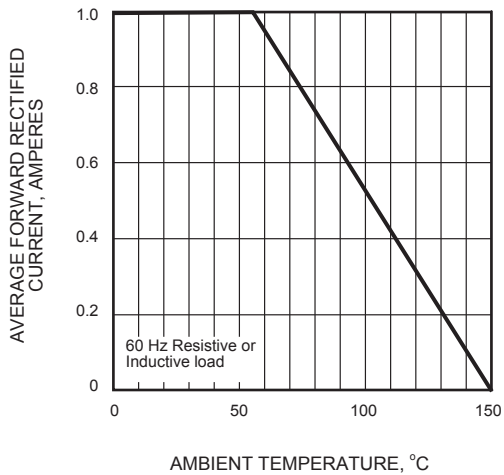


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

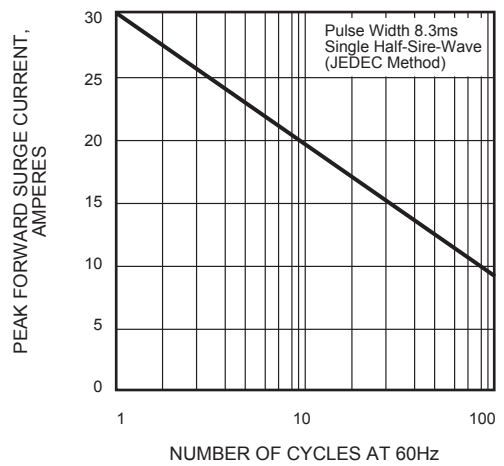


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

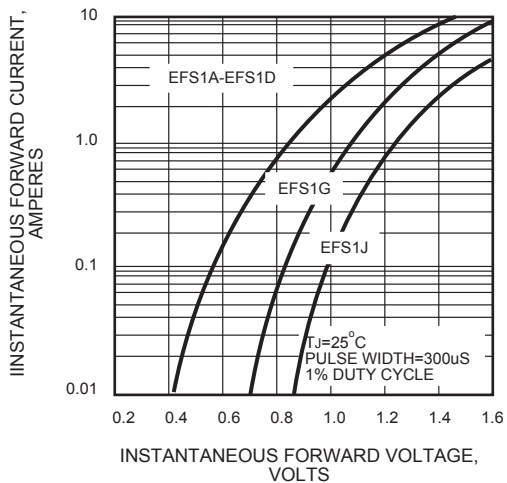


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

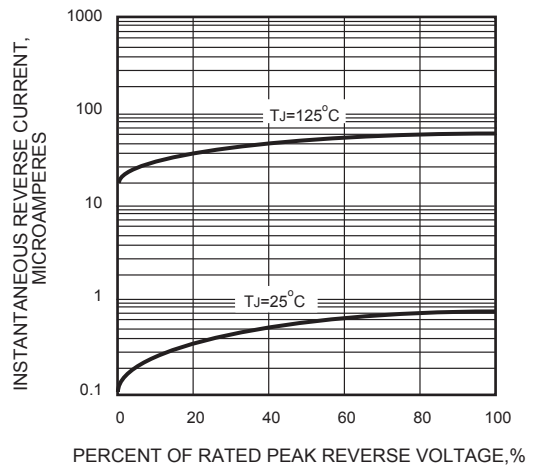


FIG.5 - TYPICAL JUNCTION CAPACITANCE

