

# ED502S Thru ED506S

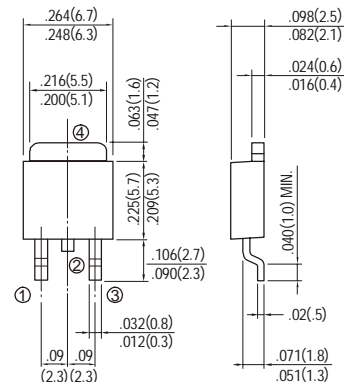
## DPAK SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER

**VOLTAGE - 200 to 600 Volts CURRENT - 5.0 Amperes**

### FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering:  
260°C / 10 seconds at terminals

### DPAK / TO-252



### MECHANICAL DATA

Case: D PAK/TO-252 molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Standard packaging: 16mm tape (EIA-481)

Weight: 0.015 ounce, 0.4 gram.

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	ED502S	ED503S	ED504S	ED506S	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	300	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	140	210	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	200	300	400	600	Volts
Maximum Average Forward Rectified Current at $T_C=75^\circ\text{C}$	$I_{(AV)}$	5.0	5.0	5.0	5.0	Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	75	75	75	75	Amps
Maximum Instantaneous Forward Voltage at 5.0A (Note 1)	$V_F$	0.95	1.25	1.25	1.70	Volts
Maximum DC Reverse Current (Note 1) $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	5.0 50	5.0 50	5.0 50	5.0 50	$\mu\text{A}$
Maximum Thermal Resistance (Note 2)	$R_{\theta JC}$ $R_{\theta JA}$	7 80	7 80	7 80	7 80	$^\circ\text{C} / \text{W}$
Maximum Reverse Recovery	$T_{RR}$	35	35	35	35	ns
Storage Temperature Range	$T_{STG}$	-55 to +150				$^\circ\text{C}$

#### NOTES:

1. Pulse Test with  $PW=300\mu\text{sec}$ , 2% Duty Cycle.
2. Mounted on P.C. Board with  $14\text{mm}^2$  (.013mm thick) copper pad areas.

## RATING AND CHARACTERISTIC CURVES

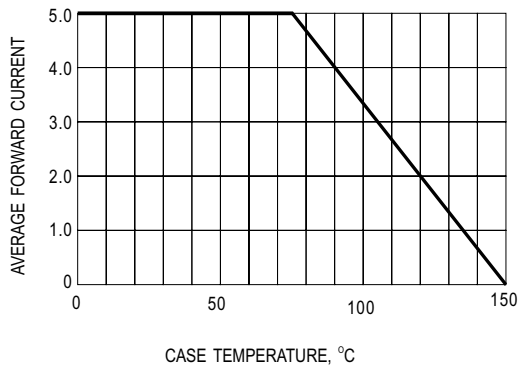


Fig.1- FORWARD CURRENT DERATING CURVE

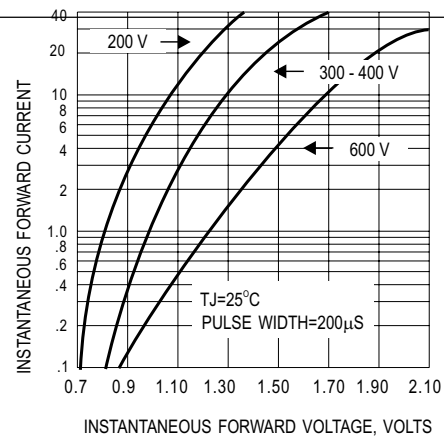


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

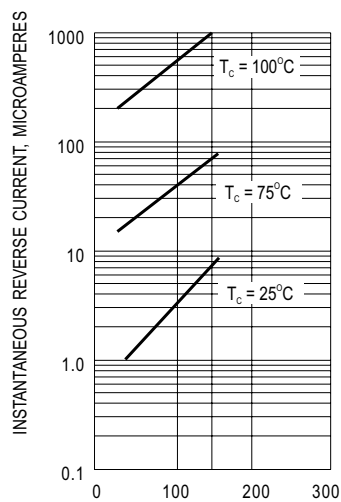


Fig.3- TYPICAL REVERSE CHARACTERISTIC

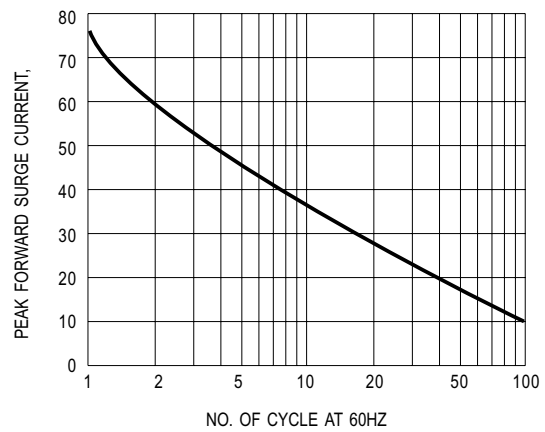


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

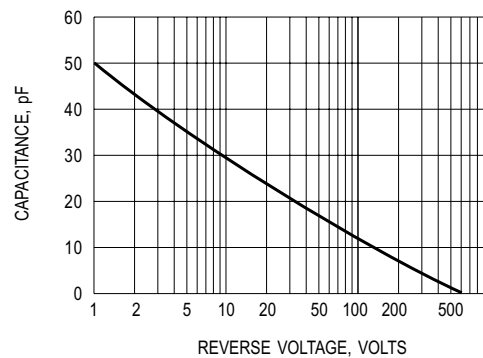


Fig.5- TYPICAL JUNCTION CAPACITANCE