

**ED602CS Thru ED606CS****DPAK SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER****VOLTAGE - 200 to 600 Volts CURRENT - 6.0 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

**MECHANICAL DATA**

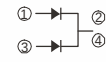
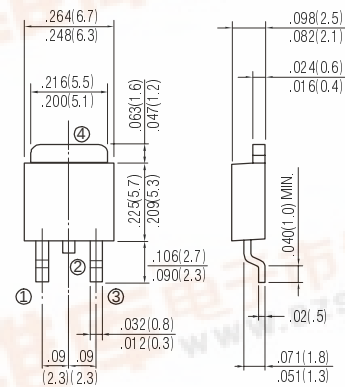
Case: D PAK/TO-252 molded plastic

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.

**DPAK / TO-252****MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

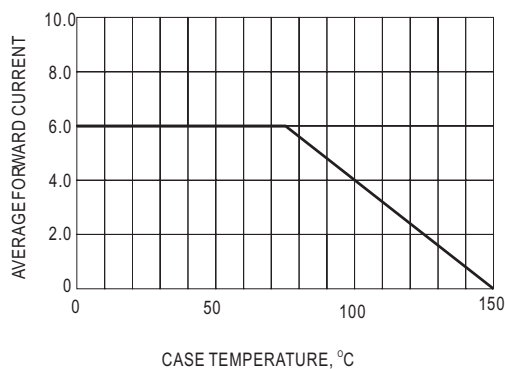
Resistive or inductive load.

|                                                                                                                           | SYMBOLS                            | ED602CS     | ED603CS   | ED604CS   | ED606CS   | UNITS                         |
|---------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------|-----------|-----------|-----------|-------------------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                                    | $V_{RRM}$                          | 200         | 300       | 400       | 600       | Volts                         |
| Maximum RMS Voltage                                                                                                       | $V_{RMS}$                          | 140         | 210       | 280       | 480       | Volts                         |
| Maximum DC Blocking Voltage                                                                                               | $V_{DC}$                           | 200         | 300       | 400       | 600       | Volts                         |
| Maximum Average Forward Rectified Current at $T_c=75^{\circ}\text{C}$                                                     | $I_{AV}$                           | 6.0         | 6.0       | 6.0       | 6.0       | Amps                          |
| Peak Forward Surge Current<br>8.3ms single half sine-wave superimposed on rated load(JEDEC method)                        | $I_{FSM}$                          | 75          | 75        | 75        | 75        | Amps                          |
| Maximum Instantaneous Forward Voltage at 3.0A (Note 1)                                                                    | $V_F$                              | 0.95        | 1.30      | 1.30      | 1.70      | Volts                         |
| Maximum DC Reverse Current (Note 1) $T_A=25^{\circ}\text{C}$<br>at Rated DC Blocking Voltage<br>$T_A=100^{\circ}\text{C}$ | $I_R$                              | 5.0<br>50   | 5.0<br>50 | 5.0<br>50 | 5.0<br>50 | $\mu\text{A}$                 |
| Maximum Thermal Resistance (Note 2)                                                                                       | $R_{\theta JC}$<br>$R_{\theta JA}$ | 9<br>80     | 9<br>80   | 9<br>80   | 9<br>80   | $^{\circ}\text{C} / \text{W}$ |
| Maximum Reverse Recovery                                                                                                  | $T_{RR}$                           | 35          | 35        | 35        | 35        | ns                            |
| Storage Temperature Range                                                                                                 | $T_{STG}$                          | -55 to +150 |           |           |           | $^{\circ}\text{C}$            |

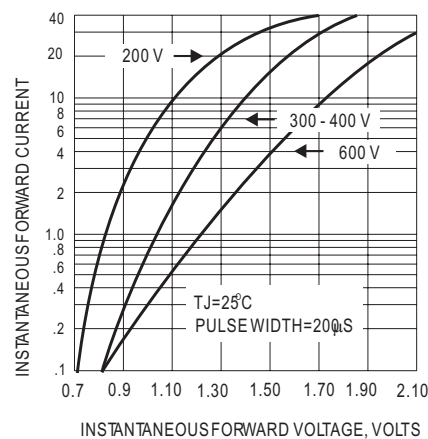
**NOTES:**

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.

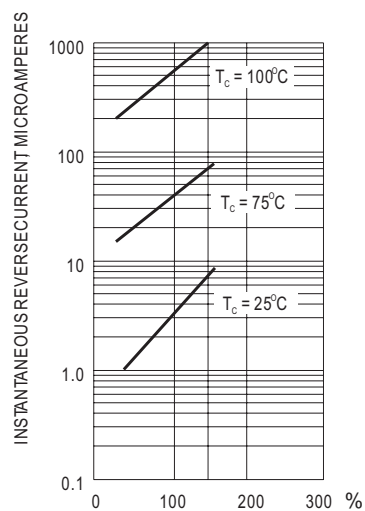
## RATING AND CHARACTERISTIC CURVES



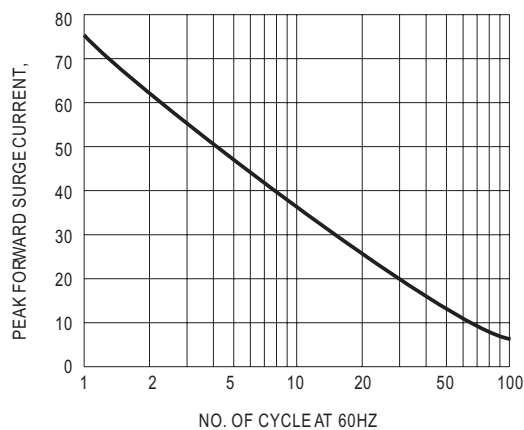
**Fig.1- FORWARD CURRENT DERATING CURVE**



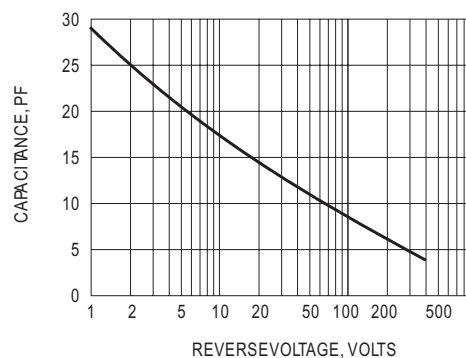
**Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.5-TYPICAL JUNCTION CAPACITANCE**