



# DATA SHEET

## ED802CS~ED806CS

### SUPERFAST RECOVERY RECTIFIERS

**VOLTAGE** 200 to 600 Volts **CURRENT** 8.0 Amperes

TO-252 / DPAK

Unit : inch (mm)

#### FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 98.5% Sn above

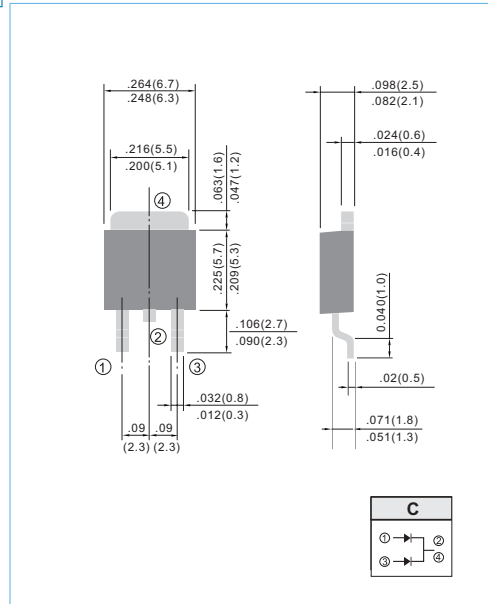
#### MECHANICAL DATA

Case: Molded plastic, TO-251AB

Terminals: Axial leads, solderable to MIL-STD-202, Method 208

Polarity: As marking

Weight: 0.015 ounces, 0.4grams.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

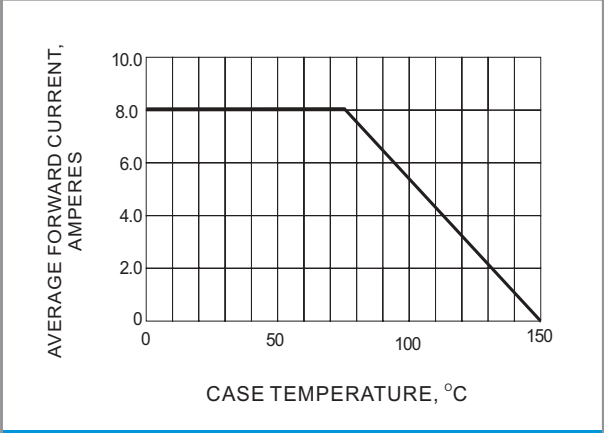
PARAMETER	SYMBOL	ED 802CS	ED 803CS	ED 804CS	ED 806CS	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	200	300	400	600	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_c = 75^\circ C$	$I_{AV}$	8.0				A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	85				A
Maximum Forward Voltage at 4.0A (Note 1)	$V_F$	0.95	1.3	1.7		V
Maximum DC Reverse Current $T_A = 25^\circ C$ at Rated DC Blocking Voltage $T_A = 100^\circ C$	$I_R$	5.0 50				$\mu A$
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	35	50			ns
Maximum thermal Resistance (Note 3)	$R_{\theta JC}$	9.0				$^\circ C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-50 TO +150				$^\circ C$

#### NOTES:

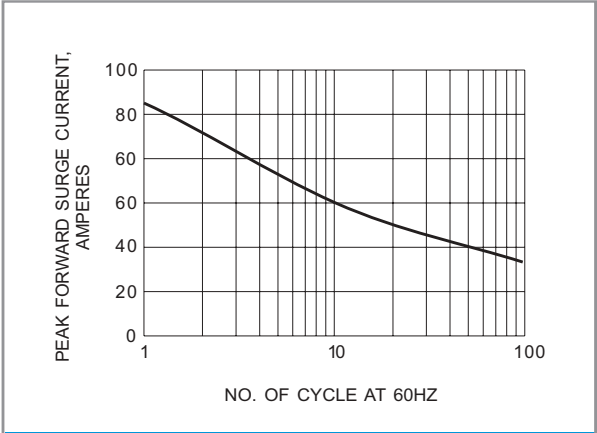
1. Pulse Test with  $PW=300$  usec, 2% Duty Cycle.
2. Reverse Recovery Tset Conditions:  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$
3. Mounted on P.C. Board with 14mm<sup>2</sup> (.013mm thick) copper pad areas.



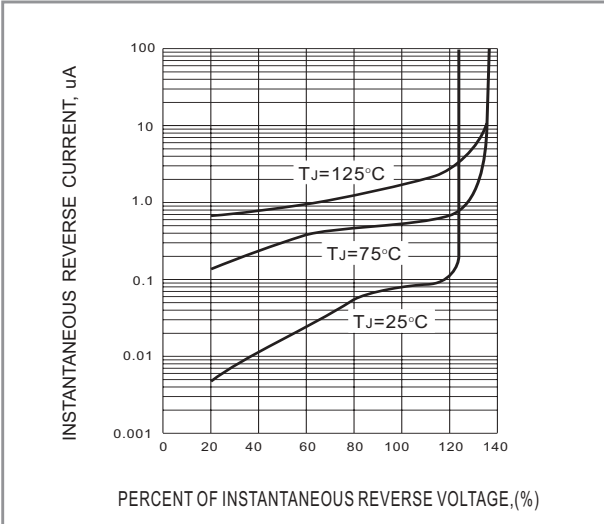
**RATING AND CHARACTERISTIC CURVES**



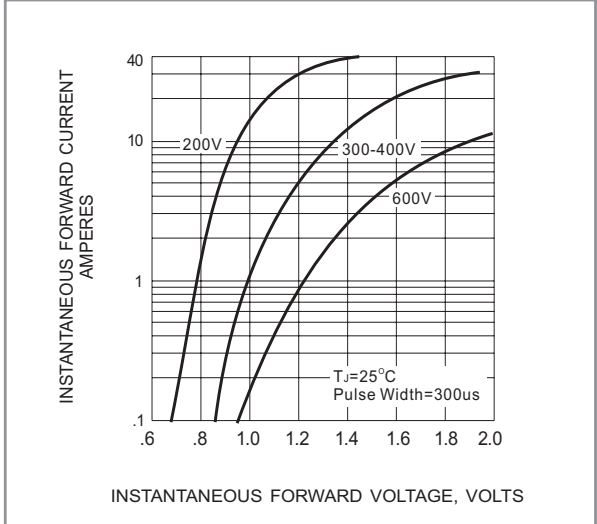
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**