



# DATA SHEET

## ED502YT~ED506YT

### SURFACE MOUNT SUPERFAST RECOVERY RECTIFIER

**VOLTAGE** 200 to 600 Volts **VOLTAGE** 6.0 Amperes

#### FEATURES

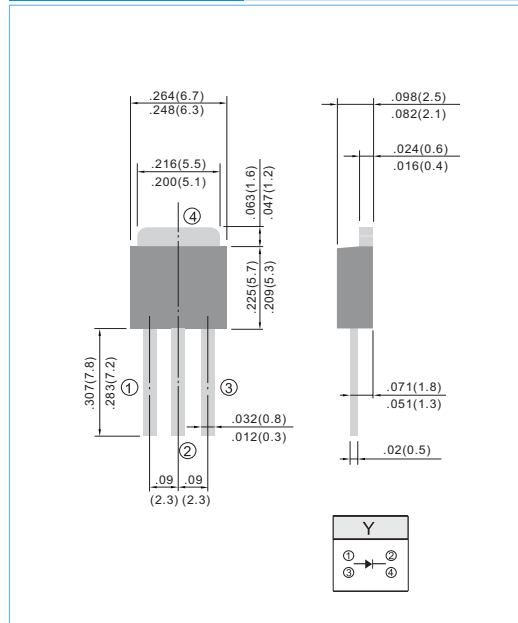
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Super fast recovery times, high voltage.
- Epitaxial chip construction.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

Case: TO-252 molded plastic package  
 Terminals: Lead solderable per MIL-STD-202G, Method 208  
 Polarity: As marked.  
 Mounting Position: Any  
 Weight: 0.0015 ounces, 0.4grams.

TO-251AB

Unit : inch (mm)



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

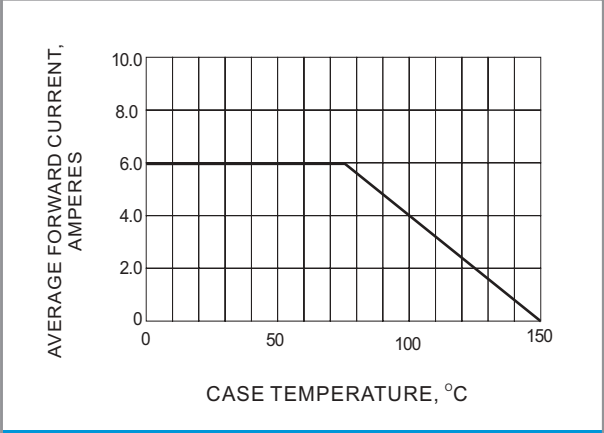
PARAMETER	SYMBOL	ED502YT	ED503YT	ED504YT	ED506YT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	200	300	400	600	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_A = 75^\circ C$	$I_{AV}$	5.0				A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	75				A
Maximum Forward Voltage at 3.0A DC	$V_F$	0.95	1.25		1.70	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 125^\circ C$	$I_R$	5.0 50				$\mu A$
Maximum Reverse Recovery Time	$T_{rr}$	35				nS
Typical Thermal Resistance	$R_{\theta JA}$	9.0				$^\circ C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-50 TO +125				$^\circ C$

#### NOTES:

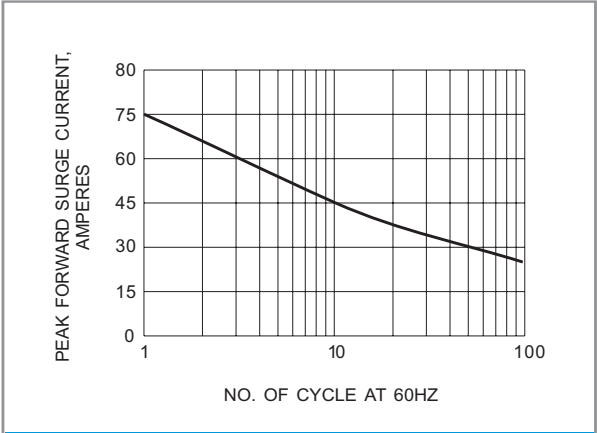
- Reverse Recovery Test Conditions:  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.
- Thermal resistance junction to CASE.



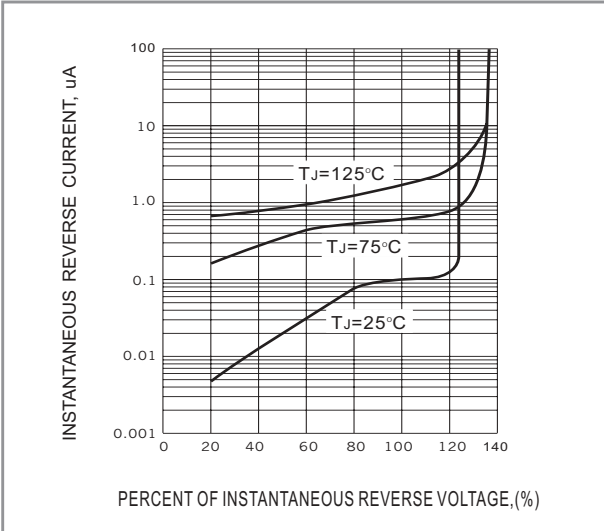
**RATING AND CHARACTERISTIC CURVES**



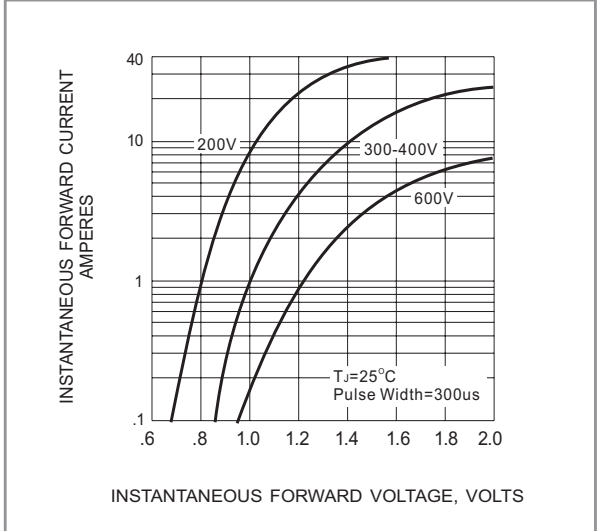
**Fig.1- FORWARD CURRENT DERATING CURVE**



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



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



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