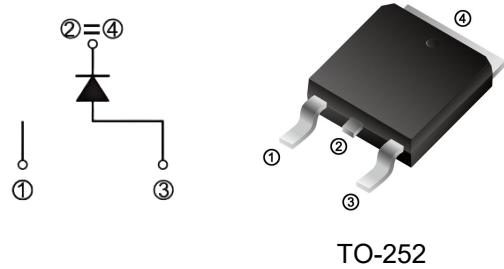


## Superfast Recovery Rectifiers

Parameter	Value	Unit
$V_{RRM}$	600	V
$I_{F(AV)}$	5	A



### Features

- Low profile package
- Fast recovery Epi diodes
- Easy to pick and place
- Low forward Voltage drop

### Applications

- Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

### Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ , unless otherwise noted)

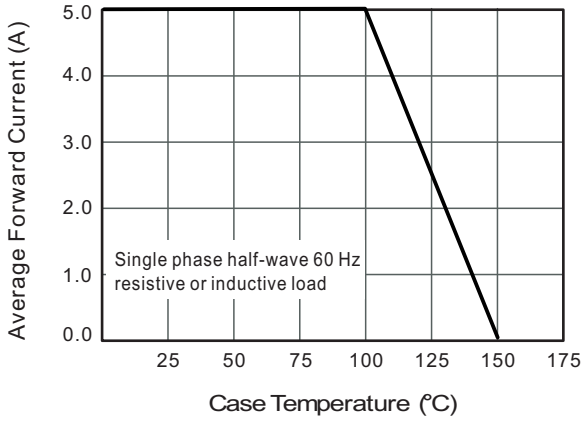
Parameter	Symbol	Value	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V	
Maximum RMS Bridge Input Voltage	$V_{RMS}$	420	V	
Maximum DC Blocking Voltage	$V_{DC}$	600	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5	A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	80	A	
Maximum Forward Voltage at 5A DC	$V_F$	1.60	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ\text{C}$	1.0	$\mu\text{A}$
		$T_A=125^\circ\text{C}$	100	$\mu\text{A}$
Maximum Reverse Recovery Time (Note1)	$T_{RR}$	35	ns	
Typical Junction Capacitance Per Element (Note2)	$C_J$	45	pF	
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	50	$^\circ\text{C/W}$	
Operating Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$	

Notes:

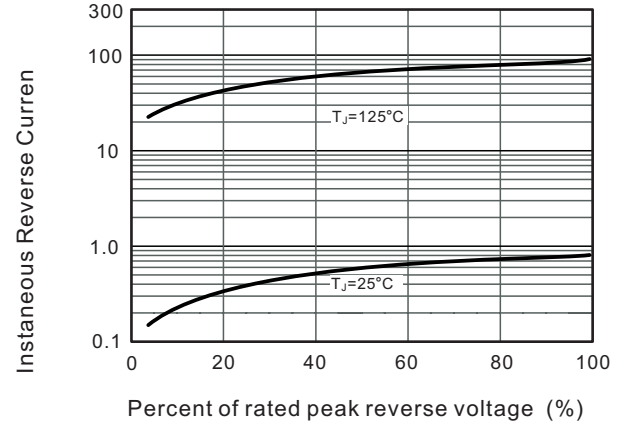
1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V DC.
3. Mounted on 10cm x 10cm x 1mm copper pad areas.

**Typical Characteristics**

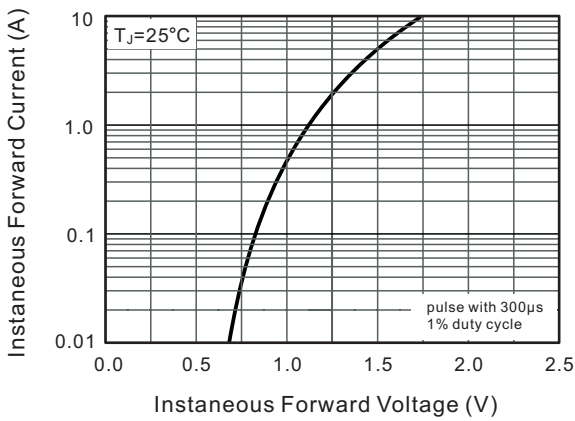
**Fig.1 Forward Current Derating Curve**



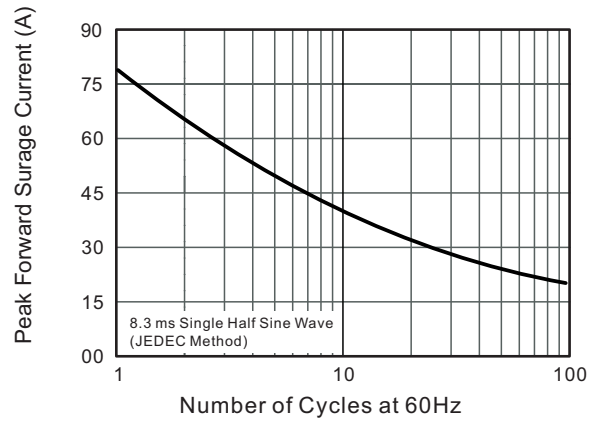
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Forward Characteristic**

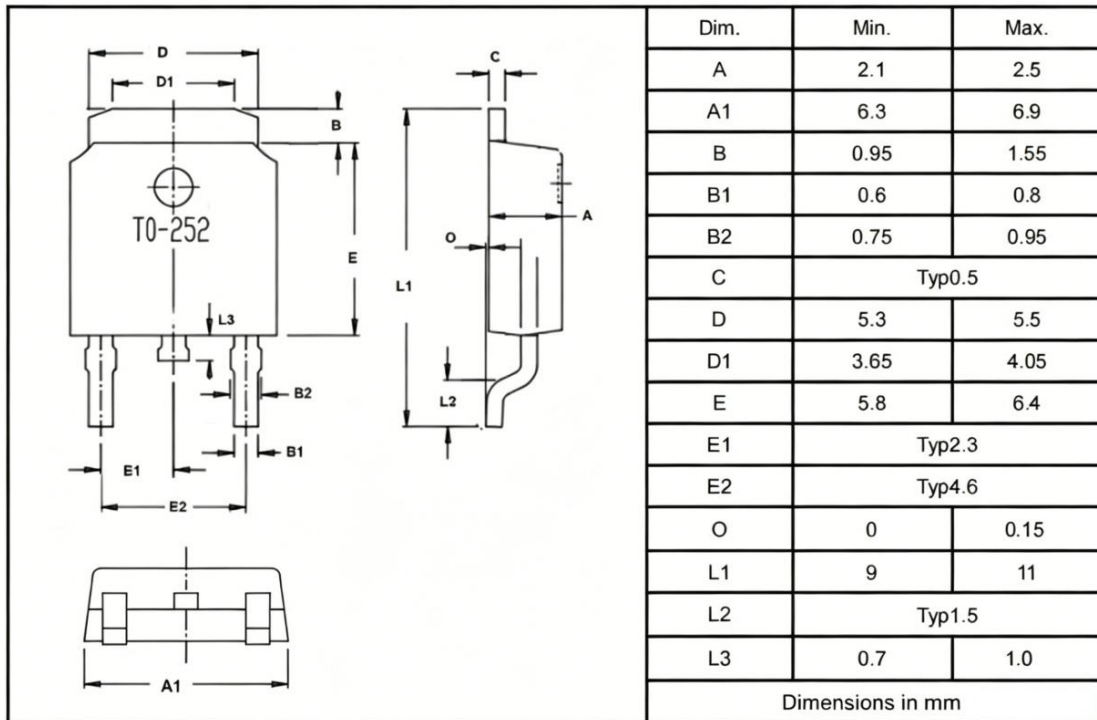


**Fig.4 Maximum Non-Repetitive Peak Forward Surge Current**



**Package Outlines**

**TO-252**



**\*Important Usage Information and Disclaimer**

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