

### FEATURES

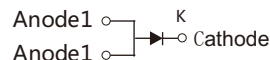
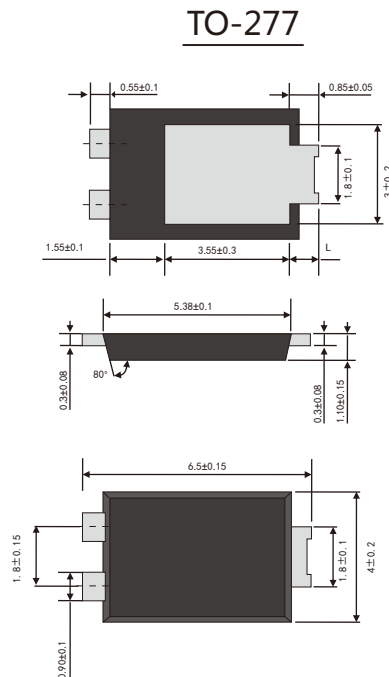
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low VF ,Low power loss
- High current capability
- High surge capability
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

### MECHANICAL DATA

- Case: TO-277 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Mounting Position: Any
- Weight: 0.092 grams(approx )

### TYPICAL APPLICATIONS

For use in high frequency inverters,DC/DC converters,  
free wheeling ,and polarity protection applications



Dimensions in millimeters

### MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	V
Maximum average forward rectified current (see fig.1)	$I_{F(AV)}$	8.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	$I_{FSM}$	200	A
Operating junction temperature range	$T_j$	-55 to +150	°C
Storage temperature range	$T_{stg}$	-55 to +150	°C

# RATINGS AND CHARACTERISTIC OF EP8J

## ELECTRICAL CHARACTERISTICS ( TA=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	IR=100μA		V <sub>BR</sub> V <sub>R</sub>	600	—	—	V
Instaneous forward voltage	T <sub>J</sub> =25°C	IF=1.0A	V <sub>F</sub> <sup>1)</sup>	—	0.96	—	V
		IF=3.0A		—	1.25	—	
		IF=8.0A		—	1.70	1.80	
	T <sub>J</sub> =125°C	IF=1.0A		—	0.67	—	
		IF=3.0A		—	0.91	—	
		IF=8.0A		—	1.25	—	
Reverse current	T <sub>J</sub> =25°C	V <sub>R</sub> =600V	I <sub>R</sub> <sup>2)</sup>	—	—	2	μA
	T <sub>J</sub> =100°C			—	—	25	μA
	T <sub>J</sub> =125°C			—	—	100	
Junction capacitance	4V,1M Hz		C <sub>J</sub>	—	50	-	pF
Reverse Recovery Time	I <sub>F</sub> =0.5A,I <sub>RR</sub> =1.0A,I <sub>RR</sub> =0.25A		T <sub>rr</sub>	—	—	35	ns

Notes: 1.Pulse test: 300μs pulse width,1% duty cycle  
2.Pulse test: pulse width≤40ms

## THERMAL CHARACTERISTICS

Parameter	Symbol	TO-277	Unit
Typical thermal resistance <sup>3)</sup>	R θJL	3.0	°C/W

3 Units mounted on recommended PCB 1 oz. Pad layout

## AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm )	Quantity (pcs/reel)	Box Size L×W×H (mm )	Quantity (reel/box)	Carton Size L×W ×H (mm )	Quantity (box/carton)
EP8J-TO-277	T/R	φ330	5000	338×338×40	2	365×365×360	7

# RATINGS AND CHARACTERISTIC OF EP8J

FIG.1-FORWARD CURRENT DERATING CURVE

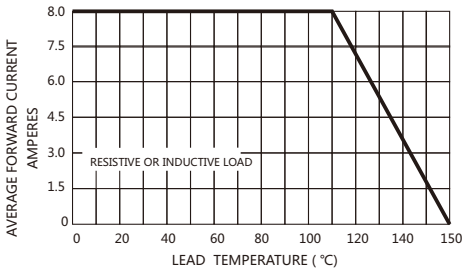


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

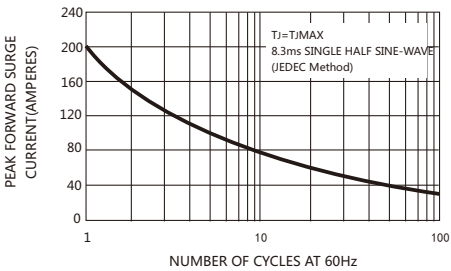


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

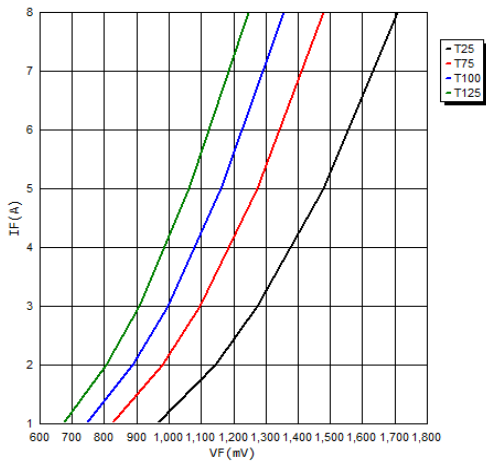


FIG.4-TYPICAL REVERSE CHARACTERISTICS

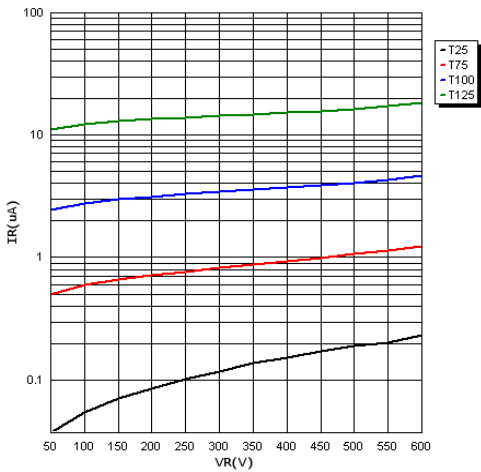


FIG.5-TYPICAL JUNCTION CAPACITANCE

