

GLASS PASSIVATED SUPER FAST RECTIFIER

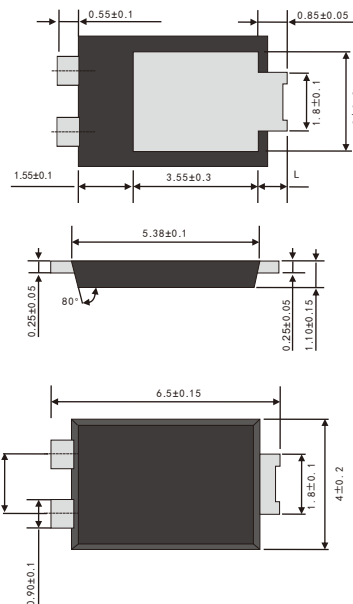
Reverse Voltage - 600 Volts
 Forward Current - 5.0Amperes
 Reverse Recovery Time - 35ns

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



TO-277

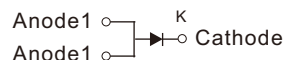


MECHANICAL DATA

- 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 millimetres

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)	$I_{F(AV)}$	5.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	120	A
Operating junction temperature range	T_J	-55 to+150	°C
Storage temperature range	T_{stg}	-55 to+150	°C

RATINGS AND CHARACTERISTIC OF EP5J

ELECTRICAL CHARACTERISTICS (T_A=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	I _R =100μA		V _{BR} V _R	600	–	–	V
Instaneous forward voltage	T _J =25	I _F =1.0A	V _F ¹⁾	–	0.97	–	V
		I _F =3.0A		–	1.20	–	
		I _F =5.0A		–	1.40	1.70	
	T _J =125	I _F =1.0A		–	0.71	–	
		I _F =3.0A		–	0.94	–	
		I _F =5.0A		–	1.10	–	
Reverse current	T _J =25	V _R =600V	I _R ²⁾	–	–	10	μA
	T _J =100			–	–	100	μA
	T _J =125			–	–	500	
Junction capacitance	4V, 1MHz		C _J	–	36	–	pF
Reverse Recovery Time	I _F =0.5A, I _{RR} =1.0A, I _{RR} =0.25A		T _{rr}	–	–	35	ns

Notes: 1.Pulse test: 300 μs pulse width, 1% duty cycle

2.Pulse test: pulse width ≤ 40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	TO-277	Unit
Typical thermal resistance ³⁾	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)
EP5J-TO-277	T/R	φ 330	5000	338×338×40	2	365×365×360	7

RATINGS AND CHARACTERISTIC OF EP5J

FIG.1-FORWARD CURRENT DERATING CURVE

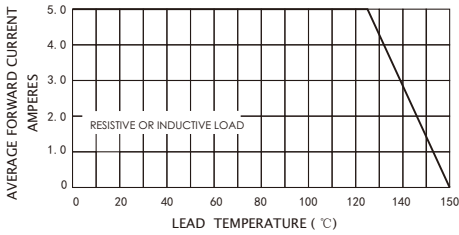


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

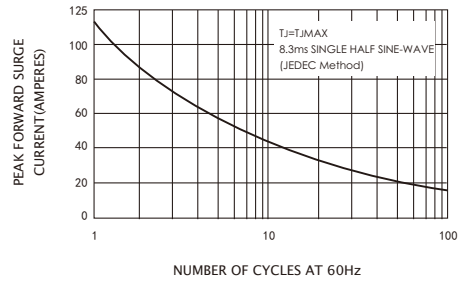


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

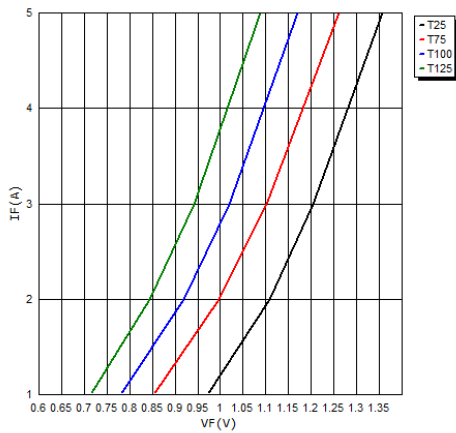


FIG.4-TYPICAL REVERSE CHARACTERISTICS

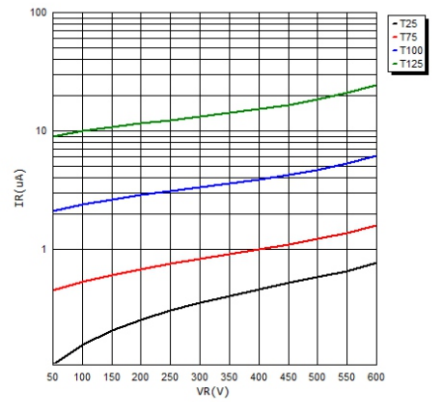


FIG.5-TYPICAL JUNCTION CAPACITANCE

