

FEATURES

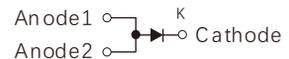
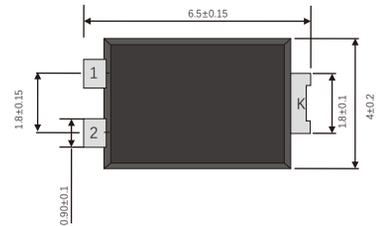
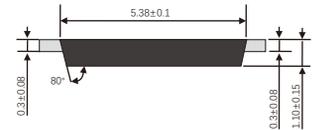
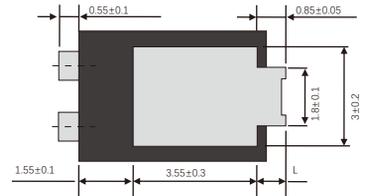
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- Very low profile-typical height of 1.1mm
- Ideal for automated placement
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/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)

TO-277



Dimensions in inches and (millimeters)

TYPICAL APPLICATIONS

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

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum average forward rectified current	$I_{F(AV)}$	10.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	180	A
Operating junction temperature range	T_J	-55 to+150	°C
Storage temperature range	T_{stg}	-55 to+150	°C

RATINGS AND CHARACTERISTIC OF SP10U200L

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

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	T _J =25°C	I _F =2.0A	V _F ¹⁾	0.70	-	V
		I _F =5.0A		0.77	-	
		I _F =10.0A		0.82	0.88	
	T _J =125°C	I _F =2.0A		0.55	-	
		I _F =5.0A		0.62	-	
		I _F =10.0A		0.69	-	
Reverse current	V _R =200V	T _J =25°C	I _R ²⁾	-	5.0	μA
		T _J =100°C		-	0.5	mA
		T _J =125°C		-	1.5	
Typical junction capacitance	4V,1MHz		C _J	140		pF

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 _{θJA}	60.0	°C/W
	R _{θJL}	3.0	

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)
SP10U200L-TO-277	T/R	φ300	5000	338*338*40	2	365*365*360	7

RATINGS AND CHARACTERISTIC OF SP10U200L

FIG.1-FORWARD CURRENT DERATING CURVE

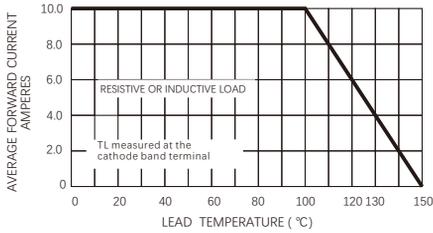


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

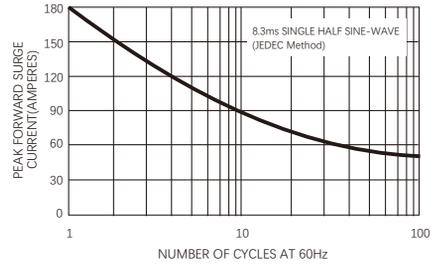


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

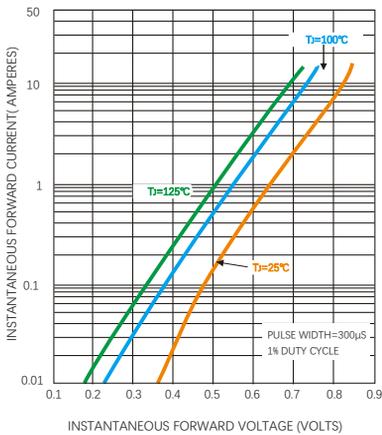


FIG.4-TYPICAL REVERSE CHARACTERISTICS

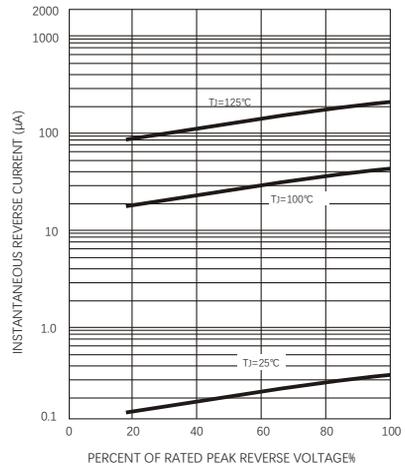
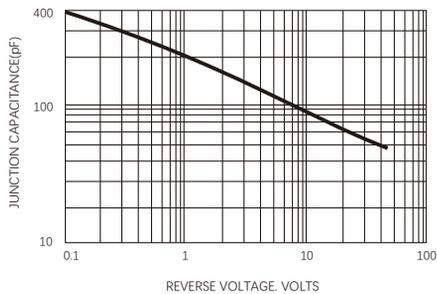


FIG.5-TYPICAL JUNCTION CAPACITANCE



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