LITE ON SEMICONDUCTOR

STPR1610CT thru 1660CT

SUPER FAST GLASS PASSIVATED RECTIFIERS

REVERSE VOLTAGE - 100 to 600 Volts FORWARD CURRENT - 16 Amperes

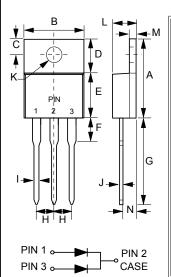
TO-220AB

FEATURES

- Glass passivated chip
- Superfast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- High surge capacity
- Plastic package has UL flammability classification 94V-0

MECHANICAL DATA

- Case : TO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)



-M	TO-220AB						
- 191	DIM.	MAX.					
	Α	14.22	15.88				
A	В	9.65	10.67				
	С	2.54	3.43				
	D	5.84	6.86				
-	E	8.26	9.28				
	F	-	6.35				
3	G	12.70	14.73				
	Н	2.29	2.79				
	I	0.51	1.14				
	J	0.30	0.64				
-	К	3.53Ø	3.43 6.86 9.28 6.35 14.73 2.79 1.14 0.64 4.09 Ø 4.83 1.40 2.92				
	L	3.56	4.83				
	М	1.14	1.40				
	N	2.03	2.92				
	All Dimensions in millimeter						

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS		SYMBOL	STPR 1610CT	STPR 1620CT	STPR 1630CT	STPR 1640CT	STPR 1650CT	STPR 1660CT	UNIT
Maximum Recurrent Peak Reverse Voltage		VRRM	100	200	300	400	500	600	V
Maximum RMS Voltage		VRMS	70	140	210	280	350	420	V
Maximum DC Blocking Voltage		VDC	100	200	300	400	500	600	V
Maximum Average Forward Rectified Current	@Tc=120℃	l(AV)			16			1	А
on Repetitive Peak Forward urge Current Per Diode IFSM nusoidal TP=8.3ms 90						A			
Pulse Width =300us IF=8 Duty cycle IF=1	BA @TJ =25℃ BA @TJ =125℃ I6A @TJ =25℃ I6A @TJ =125℃	VF	1. 1. 1.2 1.2	0 25	1.: 1.: 1.! 1.4	2 5	1	.5 .4 .7 .6	v
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	10 500						uA	
Typical Junction Capacitance per element (Note 1)		Сл	80					pF	
Maximum Reverse Recovery Ti	Trr	30		35			50	ns	
Typical Thermal Resistance		Re JC	3.0						°C/W
Operating and Storage Temperature Range		TJ,TSTG	-55 to +150						°C
IOTES : 1 Massured at 1 0MHz and applied reverse voltage of 4 0V/DC							0010		

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC. 2.Reverse Recovery Test Conditions:Ir=0.5A,Ir=1.0A,Irr =0.25A. REV. 2, Sep-2010, KTGC12

RATING AND CHARACTERISTIC CURVES STPR1610CT thru STPR1660CT

FIG.1 - FORWARD CURRENT DERATING CURVE FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT PEAK FORWARD SURGE CURRENT, AMPERES 16 120 AVERAGE FORWARD CURRENT AMPERES 100 12 80 60 8 TP=10ms 40 4 RESISTIVE OR INDUCTIVE LOAD 20 Single Half-Sine-Wave 0 0 25 2 50 50 75 100 125 150 175 10 100 CASE TEMPERATURE ,°C NUMBER OF CYCLES AT 60Hz FIG.3 - TYPICAL REVERSE CHARACTERISTICS FIG.4 - TYPICAL FORWARD CHARACTERISTICS 100.0 200 _ VB@ 300~400∖ INSTANTANEOUS REVERSE CURRENT ,(uA) 180 VB@ 100~200V PERCENT OF FORWARD CURRENT ,(%) 10.0 TJ = 100℃ 160 VB@ 500~600V 140 TJ = 75℃ 1.0 120 100 TJ = 25℃ 80 0.1 60 40 0.01 20 .001 0 140 20 60 100 0 0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%) INSTANTANEOUS FORWARD VOLTAGE, VOLTS FIG.5 - TYPICAL JUNCTION CAPACITANCE 1000 CAPACITANCE, (pF) 100 TJ = 25°C, f= 1MHz 10 100 0.1 4 10 **REVERSE VOLTAGE**, VOLTS

LITEON



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