



HTR30L100CT, HTRF30L100CT
HTRI30L100CT, HTRB30L100CT

HY ELECTRONIC (CAYMAN) LIMITED

www.hygroup.com.tw

Low VF=0.53V at IF=7.5A

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE	100	Volts
	FORWARD CURRENT	30	Amperes
FEATURES <ul style="list-style-type: none"> ●Metal of silicon rectifier , majority carrier conduction ●Trench Schottky Technology ●Low power loss, high efficiency ●High current capability, low VF ●High surge capacity ●Plastic package has UL flammability classification 94V-0 ●For use in low voltage,high frequency inverters,free wheeling,switching power supplies, DC-DC converter,and polarity protection applications MECHANICAL DATA <ul style="list-style-type: none"> ●Case: TO-220AB / ITO-220AB / TO-262AA / TO-263AB ●Polarity: As marked on the body ●Weight: 0.08ounces,2.24 grams ●Mounting position :Any 	TO-220AB HTR30L100CT	ITO-220AB HTRF30L100CT	 HALOGEN FREE
	TO-263AB HTRB30L100CT	TO-262AA HTRI30L100CT	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_A = 25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	HTR30L100CT, HTRF30L100CT, HTRI30L100CT, HTRB30L100CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	V
Maximum RMS Voltage	V _{RMS}	70	V
Maximum DC Blocking Voltage	V _{DC}	100	V
Maximum Average Forward Rectified Current (See Fig.1)	I _(AV)	30	A
Maximum Average Forward Rectified Current (Per Leg)		15	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	I _{FSM}	200	A
Peak repetitive reverse current at tp = 2 μs, 1 kHz	I _{RRM}	1	A
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C

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

PARAMETER / CONDITIONS	SYMBOL	Typ	Max	UNIT
Breakdown voltage per diode	V _{BR}	110 (minimum)	-	V
Forward Voltage (Note1)	V _F	IF=7.5A @TJ=25°C	0.57	0.61
		IF=7.5A @TJ=125°C	0.53	0.57
		IF=15A @TJ=25°C	0.72	0.77
		IF=15A @TJ=125°C	0.65	0.69
Maximum DC Reverse Current @TJ=25°C	I _R		80	uA
at Rated DC Bolcking Voltage @TJ=125°C			40	mA
Typical Junction Capacitance (Note2)	C _J	621		pF

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	Typ				UNIT
		HTR30L100CT	HTRF30L100CT	HTRI30L100CT	HTRB30L100CT	
Thermal Resistance Per Diode (Note3)	RθJC	3.0	5.5	3.5	3.5	°C/W

NOTES:1.300us pulse width,2% duty cycle.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3.Thermal resistance junction to case.

RATING AND CHARACTERISTIC CURVES

HTR30L100CT, HTRF30L100CT

HTRI30L100CT, HTRB30L100CT

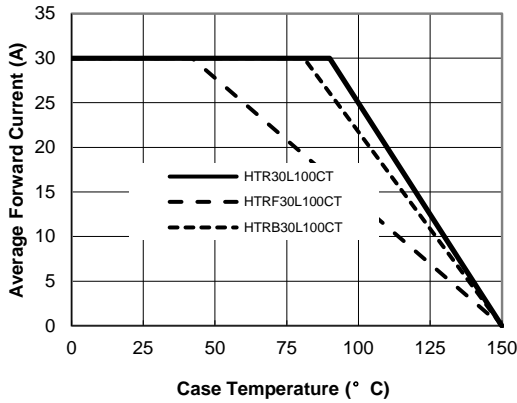


Figure 1. Forward Current Derating Curve

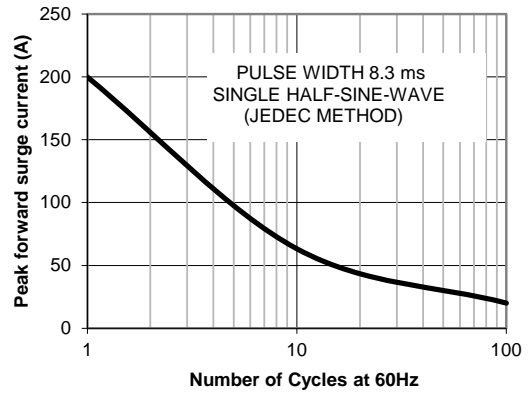


Figure 2. Maximum NON-Repitive Surge

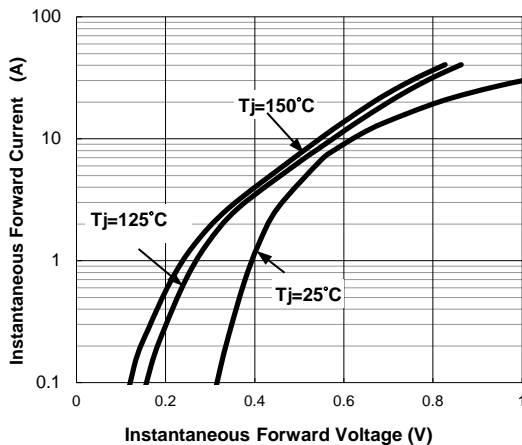


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

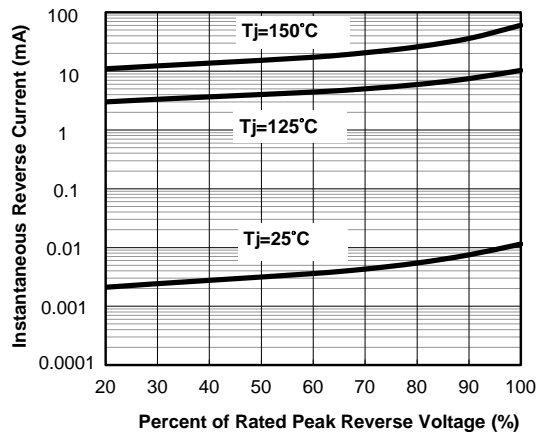


Figure 4. Typical Reverse Characteristics

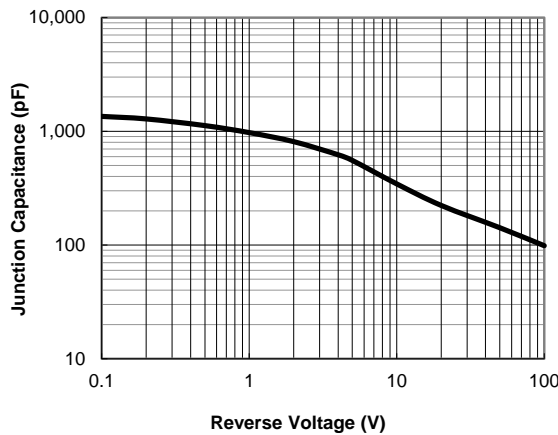


Figure 5. Typical Junction Capacitance

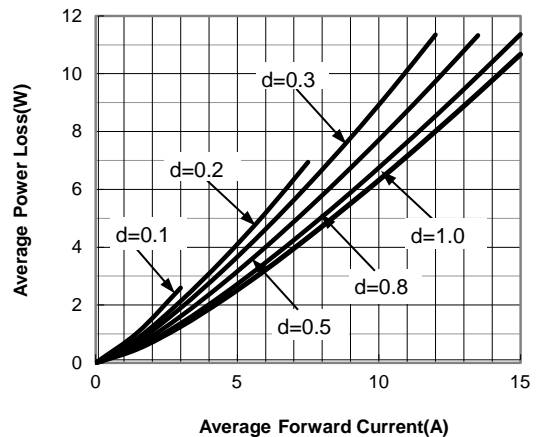


Figure 6. Forward Power Loss Characteristics

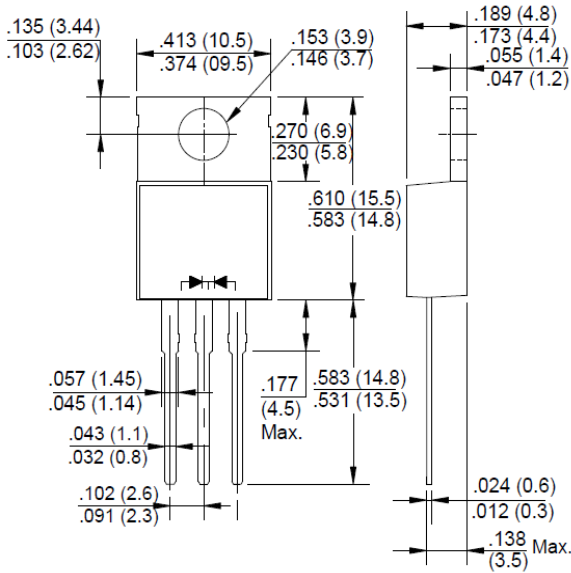
PACKAGE OUTLINE DIMENSIONS in millimeters

HTR30L100CT, HTRF30L100CT

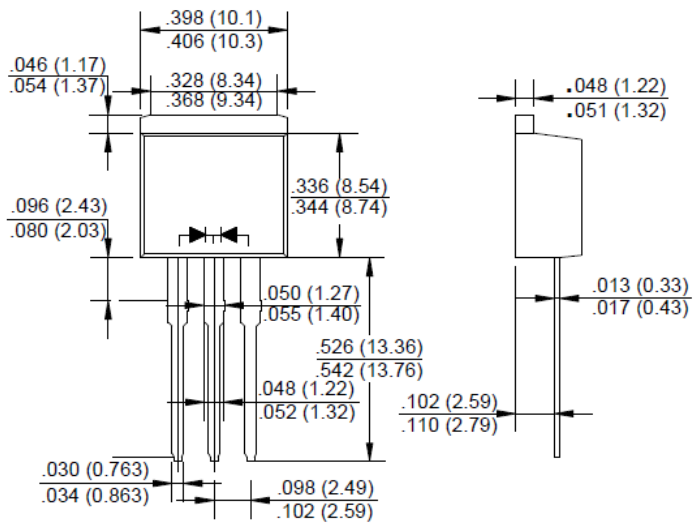
HTRI30L100CT, HTRB30L100CT



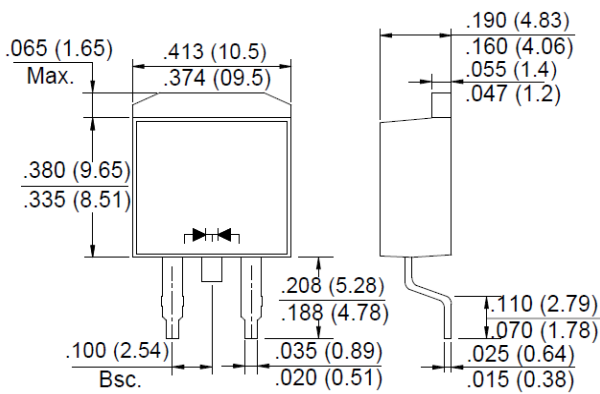
TO-220AB



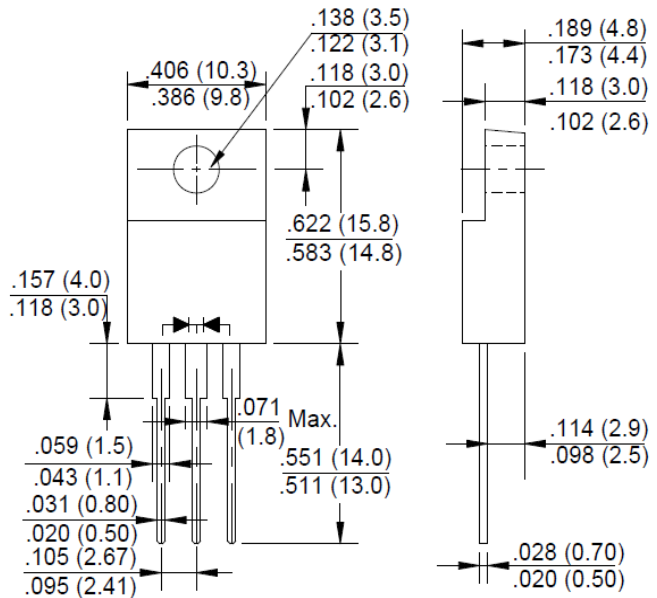
TO-262AA



TO-263AB



ITO-220AB



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