HTR20K200CT, HTRF20K200CT
HTRI20K200CT, HTRB20K200CT

TRENCH SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE 200 Volts
FORWARD CURRENT 20 Amperes

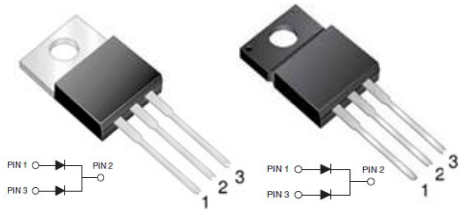
Features
- Trench Schottky, majority carrier conduction
- Low reverse leakage current
- Low forward voltage drop
- High surge capacity
- Meet UL flammability classification 94V-0

Mechanical Data
- Case: TO-220AB / ITO-220AB / TO-263AB / TO-262AB
- Polarity: Color band denotes cathode
- Mounting position: Any

Note: Products with logo HY or hy are made by HY Electronic (Cayman) Limited.

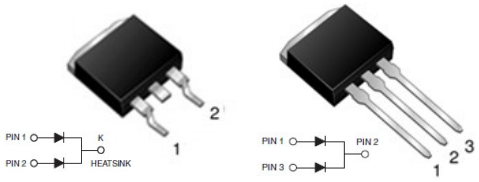
Applications
- For use in low voltage,high frequency inverters,free wheeling,switching power supplies, DC-DC converter,and polarity protection applications

TO-220AB **ITO-220AB**



HTR20K200CT HTRF20K200CT

TO-263AB **TO-262AA**



HTRB20K200CT HTRI20K200CT

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ 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	HTR20K200CT, HTRF20K200CT, HTRI20K200CT, HTRB20K200CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS Voltage	V_{RMS}	141	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Rectified Current (See Fig.1) Maximum Average Forward Rectified Current (Per Leg)	$I_{(AV)}$	20 10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	I_{FSM}	70	A
Peak repetitive reverse current at tp = 2 μs, 1 kHz	I_{RRM}	1	A
Operating Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +175	℃

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

PARAMETER / CONDITIONS	SYMBOL	Typ	Max	UNIT
Breakdown voltage per diode	V_{BR}	200(minimun)	-	V
Forward Voltage (Note1) IF=5A @TJ=25℃ IF=5A @TJ=125℃ IF=10A @TJ=25℃ IF=10A @TJ=125℃	V_F	1.19 0.67 1.93 0.82	1.40 0.73 2.50 0.92	V
Maximum DC Reverse Current @TJ=25℃ at Rated DC Bolcking Voltage @TJ=125℃	I_R	138 34		uA mA
Typical Junction Capacitance (Note3)	C_J	77		pF

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

PARAMETER	SYMBOL	Typ				UNIT
		HTR20K200CT	HTRF20K200CT	HTRI20K200CT	HTRB20K200CT	
Thermal Resistance Per Diode (Note4)	RθJC	3.0	5.5	3.5	3.5	℃/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.

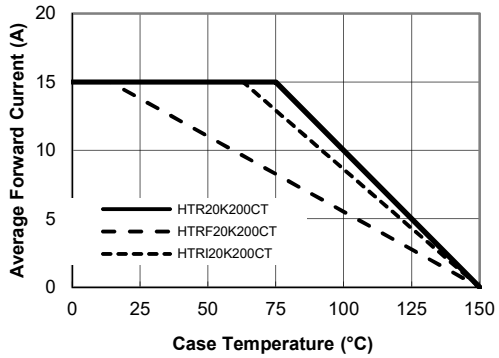


Figure 1. Forward Current Derating Curve

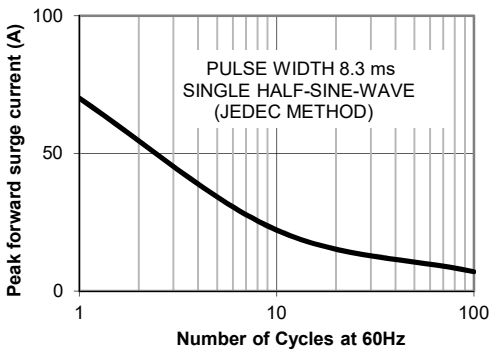


Figure 2. Maximum NON-Repetitive

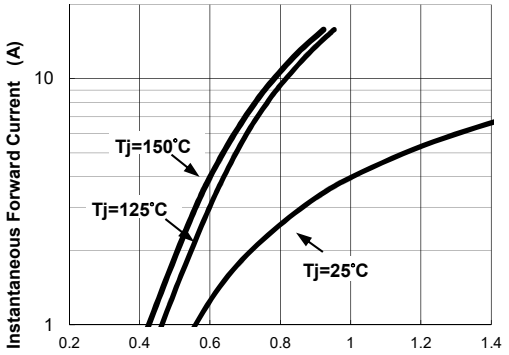


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

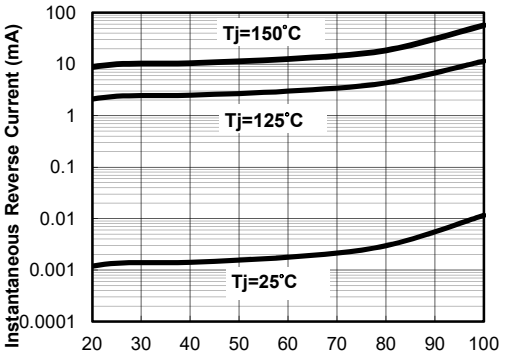


Figure 4. Typical Reverse Characteristics

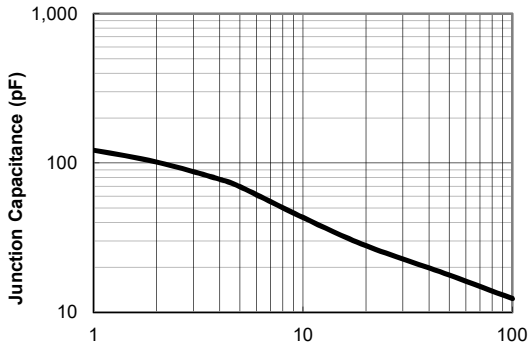


Figure 5. Typical Junction Capacitance

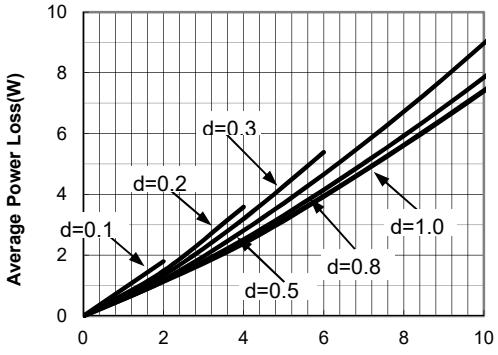
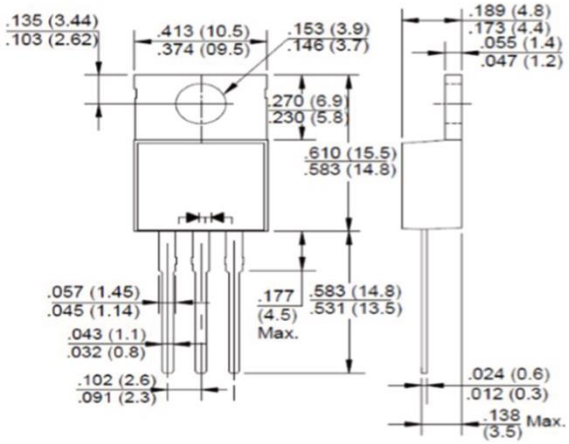
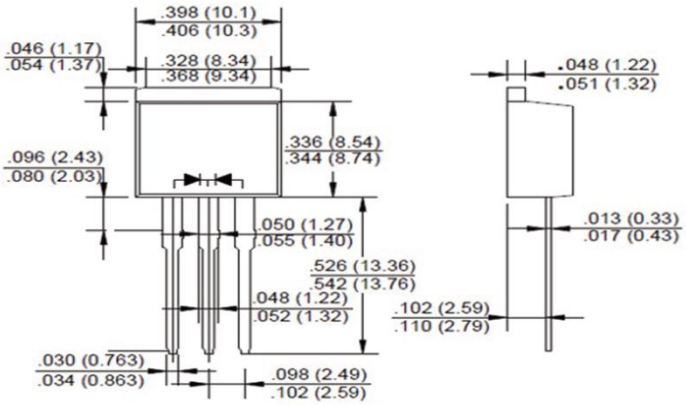


Figure 6. Forward Power Loss Characteristics

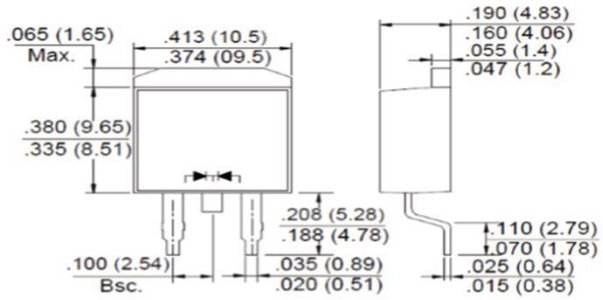
TO-220AB



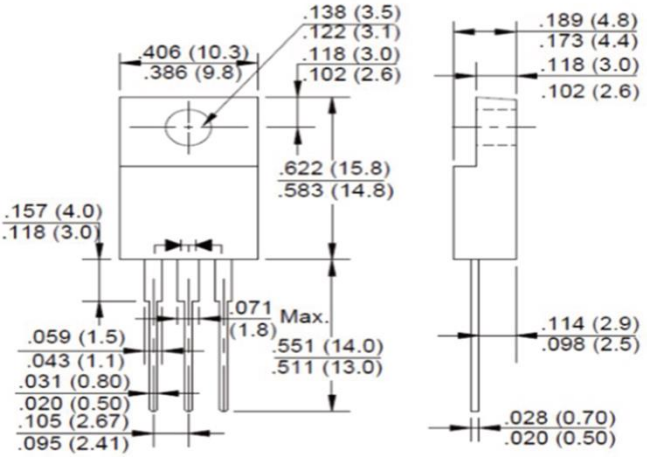
TO-262AA



TO-263AB



ITO-220AB



Disclaimer

ALL specifications and data are subject to be changed without notice to improve reliability function or design or other reasons.

HY makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, HY disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special,consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on HY's knowledge of typical requirements that are often placed on HY products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.Parameters provided in datasheets and specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify HY's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, HY products are not designed for use in medical, life-saving, or life-sustaining applications or for any other applications in which the failure of the HY product could result in personal injury or death. Customers using or selling HY products not expressly indicated for use in such applications do so at their own risk.Please contact authorized HY personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of HY. Product names and markings noted herein may be trademarks of their respective owners.