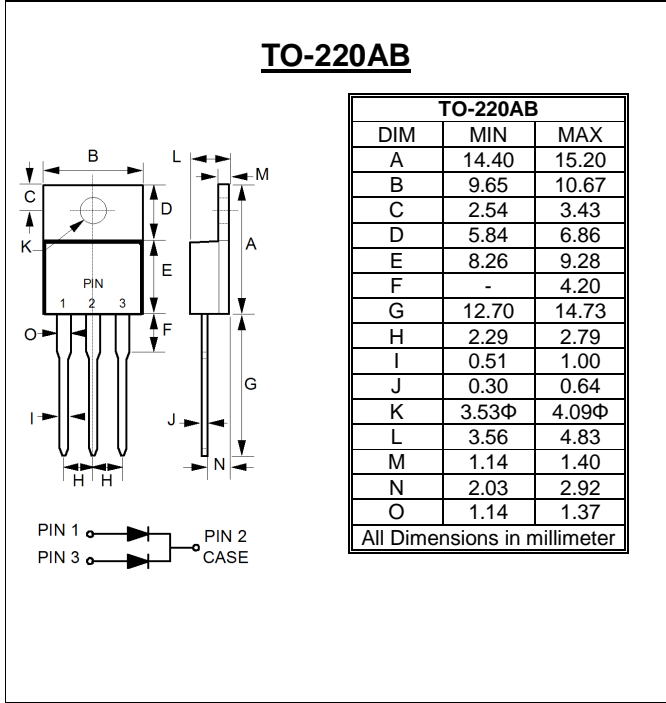


TRENCH SCHOTTKY RECTIFIERS

REVERSE VOLTAGE – 45 Volts
FORWARD CURRENT – 20 Amperes

- FEATURES**
- Trench Schottky technology
 - Low power loss, high efficiency
 - Low forward drop voltage
 - For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- MECHANICAL DATA**
- Case: TO-220AB molded plastic
 - Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
 - Terminals: Matte Tin
 - Lead Free Finish, RoHS Compliant
 - Polarity: As marked on the body
 - Weight: 0.072 ounces, 2.0275 grams(Approximate)
 - Mounting position: Any
 - Max. mounting torque = 0.5 N.m (5.1 Kgf-cm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
 Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	45	V
Maximum DC Blocking Voltage	V _{DC}	45	V
Average Rectified Output Current per device @T _c =115°C	I _F	20	A
Non-repetitive Peak Forward Surge Current single half sine-wave tp=8.3ms	I _{FSM}	180	A
Operating and Storage temperature range	T _J , T _{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

Parameter	Test condition	Symbol	Typ.	Max.	Unit
Maximum Forward Voltage Note(1)	I _F =10A @T _j =25°C I _F =10A @T _j =125°C	V _F	- 0.45	0.5 -	V
Maximum DC Reverse Current	V _R =45V @T _j =25°C @T _j =125°C	I _R	- -	0.5 100	mA mA
Junction Capacitance per element	1MHz, V _R =4V	C _j	1240	-	pF

THERMAL CHARACTERISTICS

Parameter	SYMBOL	VALUE	UNIT
Typical thermal resistance Junction (Note 2&3)	R _{θJC}	3	°C/W
	R _{θJL}	5	
	R _{θJA}	20	

Note :
 (1) 300us Pulse Width, 2% Duty Cycle.
 (2) Thermal Resistance Junction to Case, Lead and Ambient.
 (3) Device mounted on 50 x 50 x 1.85 mm Copper plate.

FIG.1- FORWARD CURRENT DERATING CURVE

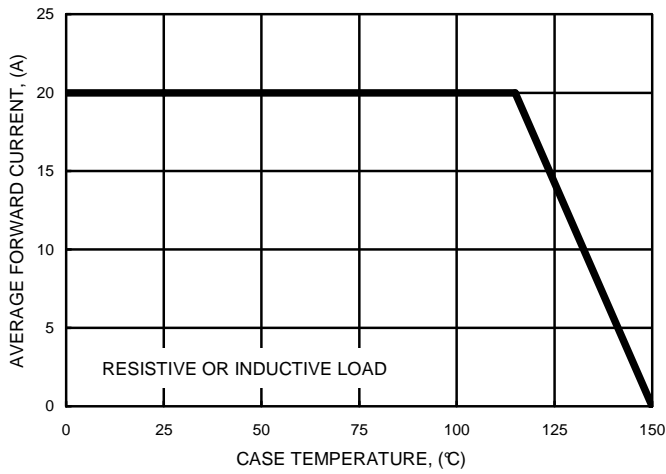


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

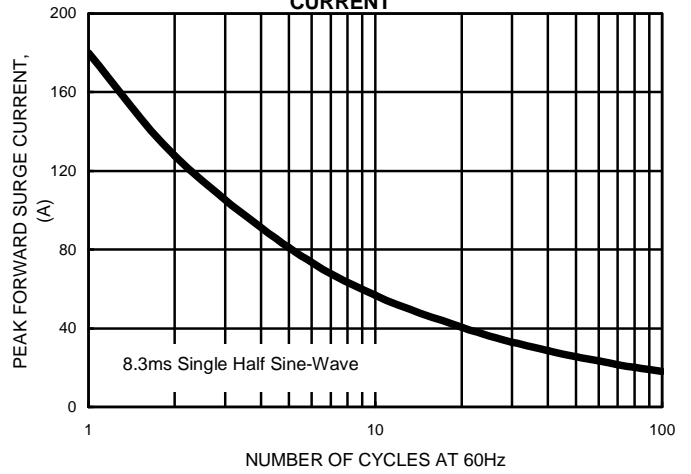


FIG.3- TYPICAL JUNCTION CAPACITANCE

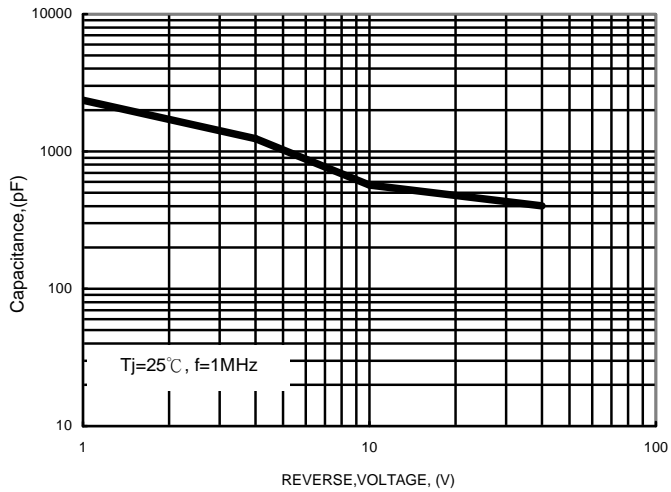


FIG.4- TYPICAL FORWARD CHARACTERISTICS

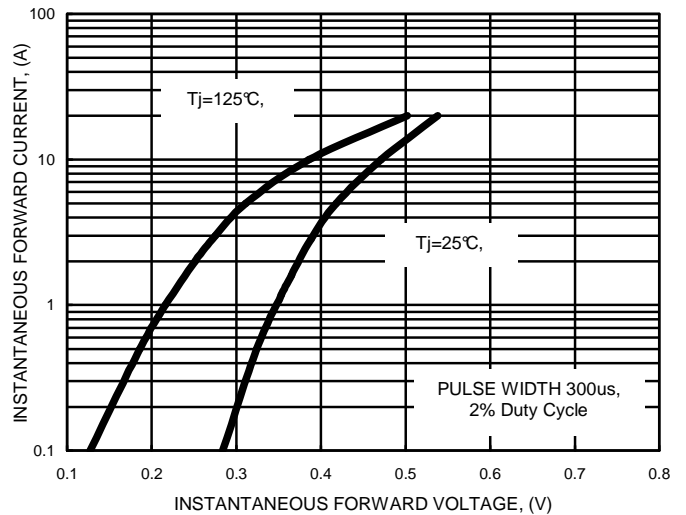
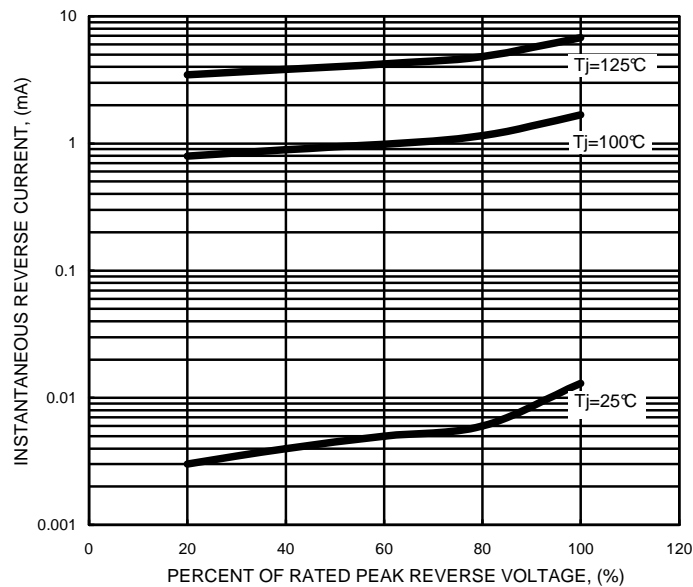


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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