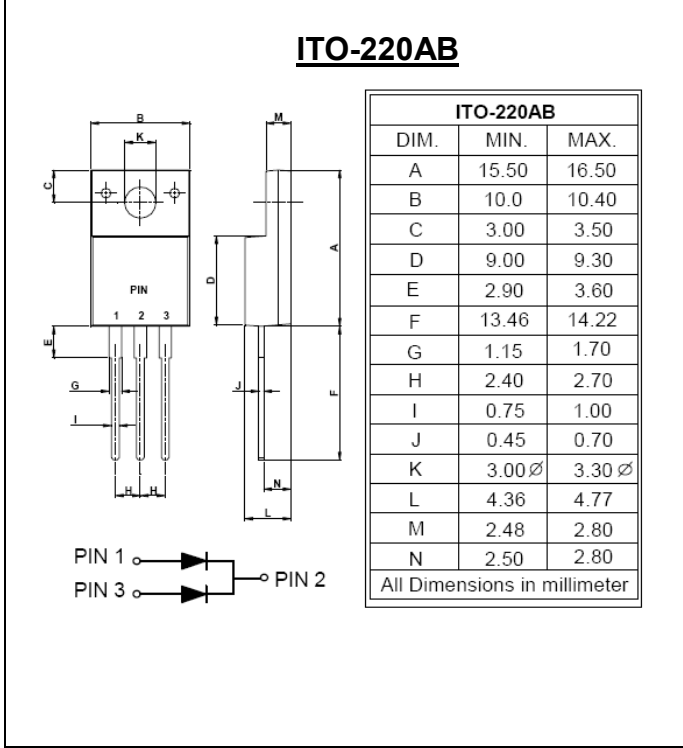


SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 10 Amperes

- FEATURES**
- Metal of silicon rectifier, majority carrier conduction
 - Guard ring for transient protection
 - Low power loss, high efficiency
 - High surge¤t capability, low VF
 - For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- MECHANICAL DATA**
- Case: ITO-220AB molded plastic
 - Plastic package has UL flammability classification 94V-0
 - Terminals: Matte Tin, solderable per MIL-STD-202 Method 208
 - Moisture sensitivity: level 1 per J-STD-020D
 - Lead Free Finish, RoHS Compliant
 - Polarity: As marked on the body
 - Weight: 1.65 grams
 - 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.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	MBRF10100CTL	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	71	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Average Rectified Output Current @ $T_c=115^\circ C$	I_F	10	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
Maximum Forward Voltage IF=5A@ Tj=25°C Note(1) IF=5A@ Tj=125°C	V_F	0.80 0.71	V
Maximum DC Reverse Current at Rated DC Blocking Voltage Tj=25°C Tj=125°C	I_R	0.2 25	mA
Typical thermal resistance Junction to Case	$R_{\theta JC}$	4.0	°C/W
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Note :

REV. 0, Sep-2008, KTHC69

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 V_{DC} .

FIG.1- FORWARD CURRENT DERATING CURVE

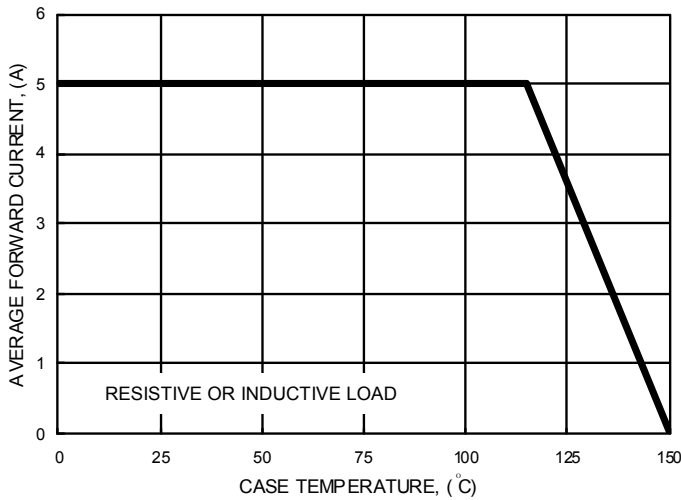


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

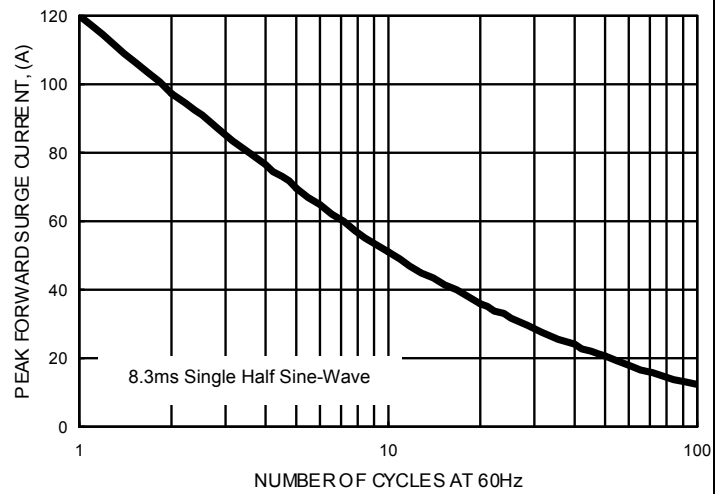


FIG.3- TYPICAL JUNCTION CAPACITANCE

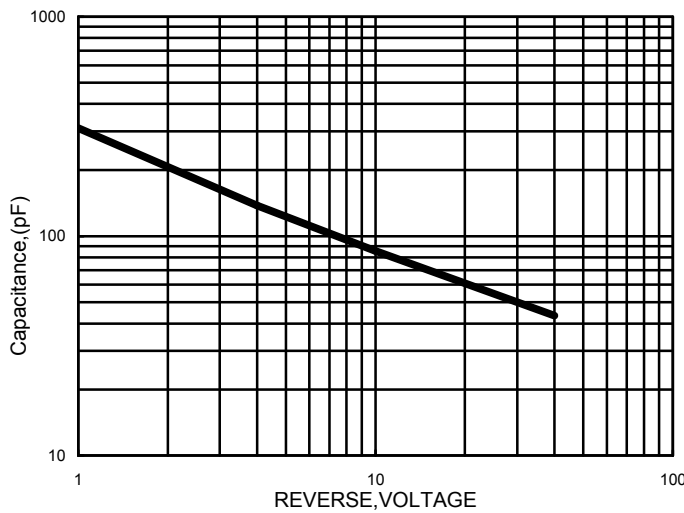


FIG.4- TYPICAL FORWARD CHARACTERISTICS

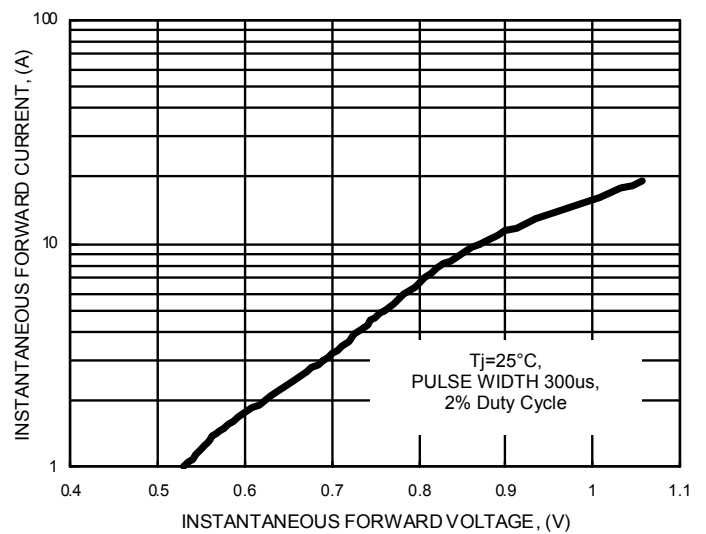
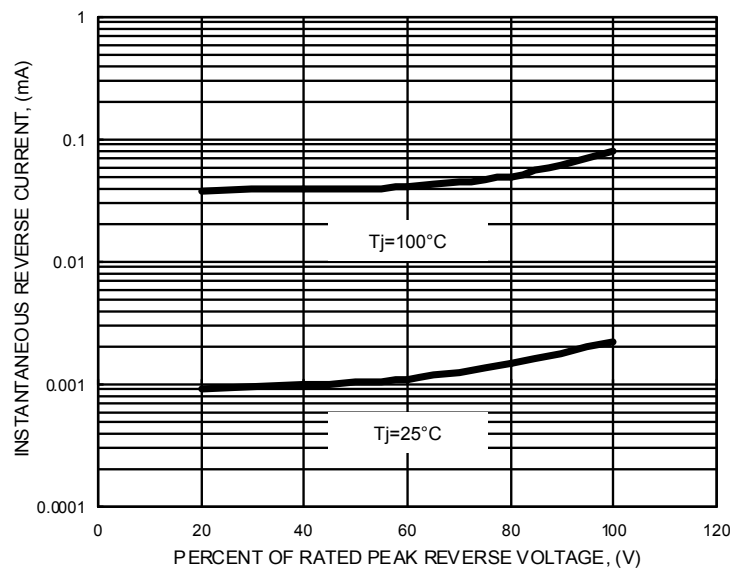


FIG.3- TYPICAL REVERSE CHARACTERISTICS



Note: LSC and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes, to this document, and the products and services described herein at anytime, without notice.