

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 20 Amperes

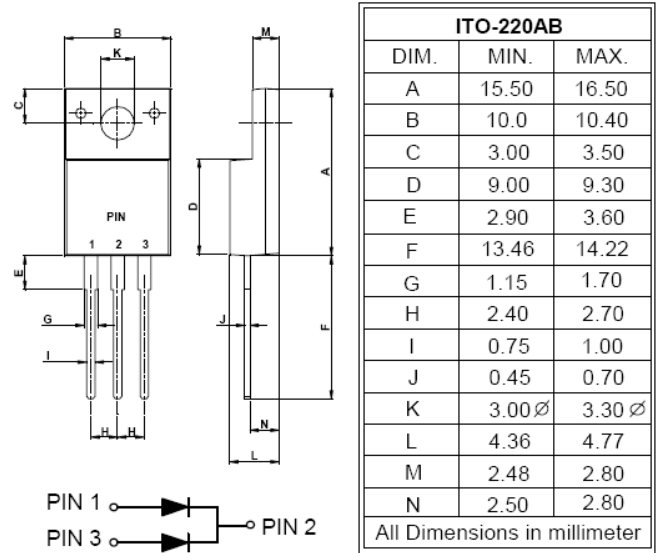
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High surge & current 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)

ITO-220AB



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	MBRF20100CTL	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Average Rectified Output Current @Tc=95°C	I_F	20	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Maximum Forward Voltage IF=10A@ Tj=25°C Note(1) IF=10A@ Tj=125°C	V_F	0.82 0.75	V
Maximum DC Reverse Current at Rated DC Blocking Voltage Tj=25°C Tj=100°C	I_R	0.1 10	mA
Typical Junction Capacitance per element (2)	C_J	250	pF
Typical thermal resistance Junction to Case (3)	$R_{\theta JC}$	4.0	°C/W
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Note :

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 V_{DC} .
- (3) Thermal Resistance Junction to Case, device mounted on L250 x W250 x H20 mm _ Aluminum heat sink,

REV. 1, Oct-2008, KTHC64

FIG.1- FORWARD CURRENT DERATING CURVE

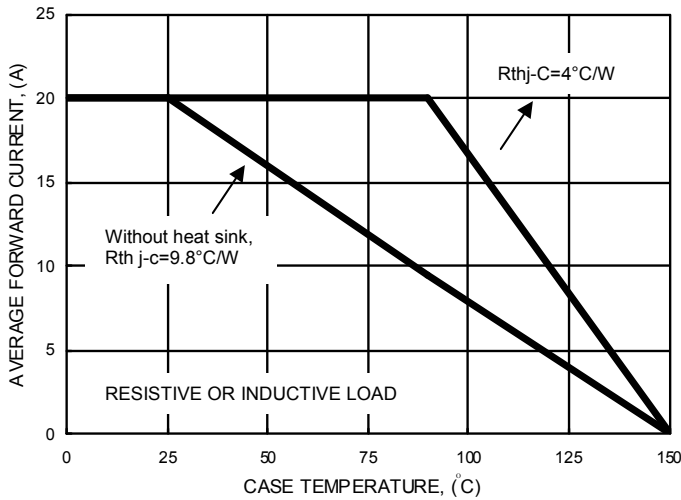


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

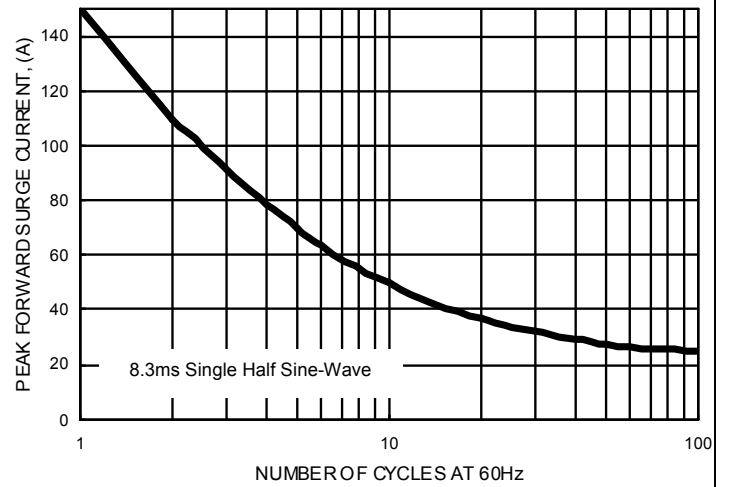


FIG.3- TYPICAL REVERSE CHARACTERISTICS

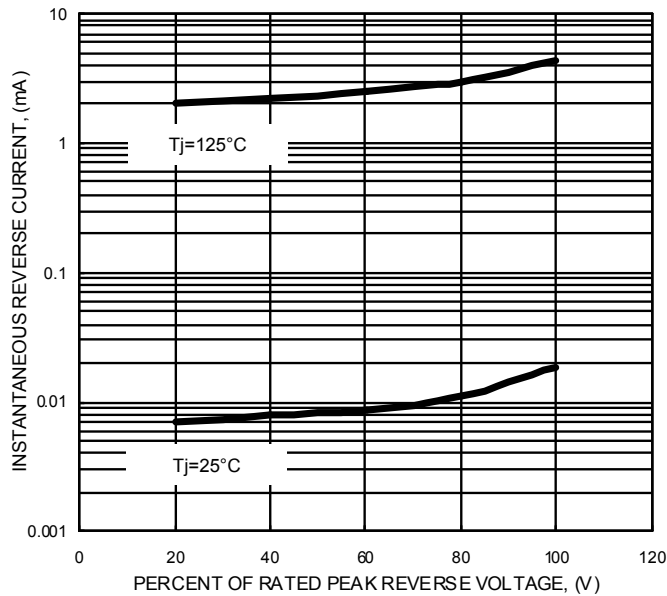


FIG.4- TYPICAL FORWARD CHARACTERISTICS

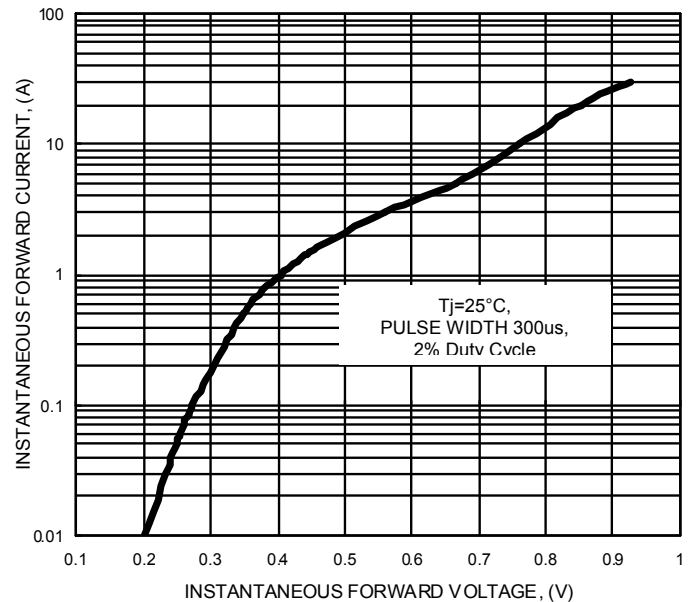


FIG.5- TYPICAL JUNCTION CAPACITANCE

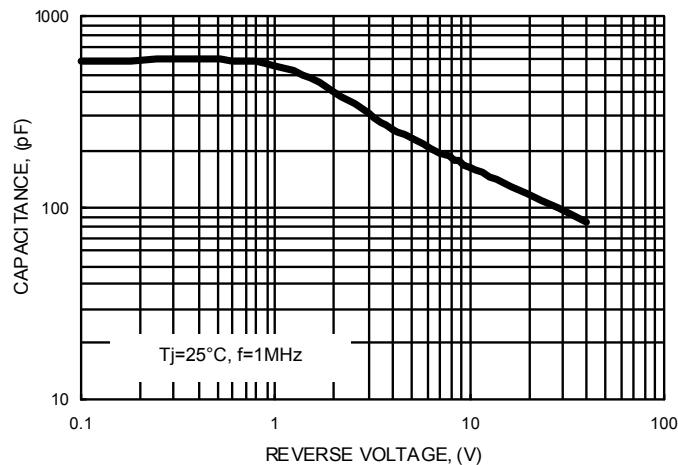
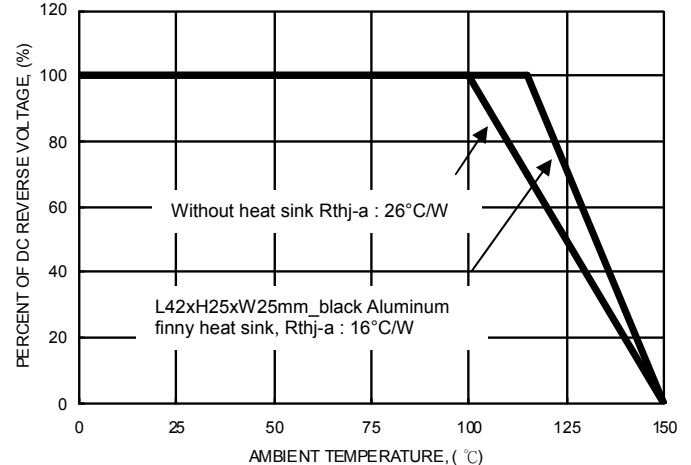


FIG.6- DC REVERSE VOLTAGE DERATING CURVE



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.