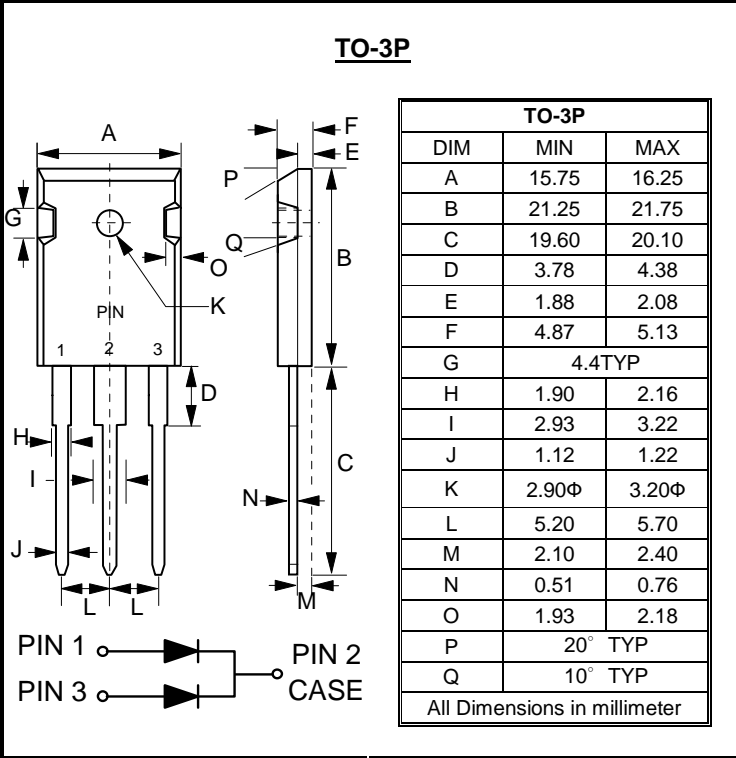


SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 30 to 60 Volts
FORWARD CURRENT – 60 Amperes

- FEATURES**
- Metal of silicon rectifier, majority carrier conduction
 - Guard ring for transient protection
 - Low power loss, high efficiency
 - High current capability, low V_F
 - High surge capacity
 - For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- MECHANICAL DATA**
- Case : TO-3P molded plastic
 - Case Material: Molding compound, UL flammability classification 94V-0
 - Mounting position: Any
 - Polarity : As marked on the body
 - Weight: 6.372grams (Approximate)
 - Max. mounting torque= 0.5N.m(5.1 Kgf.cm)



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

ABSOLUTE RATINGS

PARAMETER	SYMBOL	SBL6030PT	SBL6040PT	SBL6045PT	SBL6050PT	SBL6060PT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	45	50	60	V
Maximum DC Blocking voltage	V_{DC}	30	40	45	50	60	V
Maximum Average rectified forward current	I_F	@ $T_c=100^\circ C$			60		A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	I_{FSM}				450		A
Operating temperature range	T_J				-55 ~ +125		°C
Storage temperature range	T_{STG}				-55 ~ +150		°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX			UNIT
Forward voltage (Note 1)	$I_F=30A$ $T_J=25^\circ C$	V_F	0.55		0.70	V
Reverse leakage current at Rated DC blocking voltage	$T_J=25^\circ C$ $T_J=100^\circ C$	I_R	10		200	mA
Typical junction capacitance (Note 2)		C_j	1000		550	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	R_{thJC}	0.5	°C/W

Note :
 (1) 300us pulse with, 2% duty cycle
 (2) Measured at 1.0MHz and applied reverse voltage of 4.0 V_{DC}
 (3) Thermal Resistance Junction Case

RATING AND CHARACTERISTIC CURVES
SBL6030PT thru 6060PT



FIG.1- FORWARD CURRENT DERATING CURVE

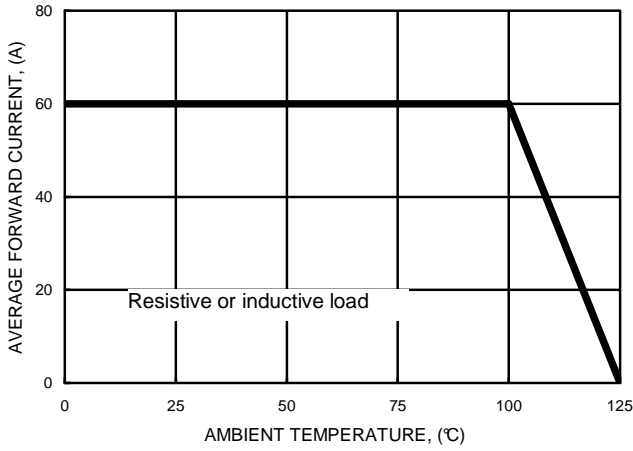


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

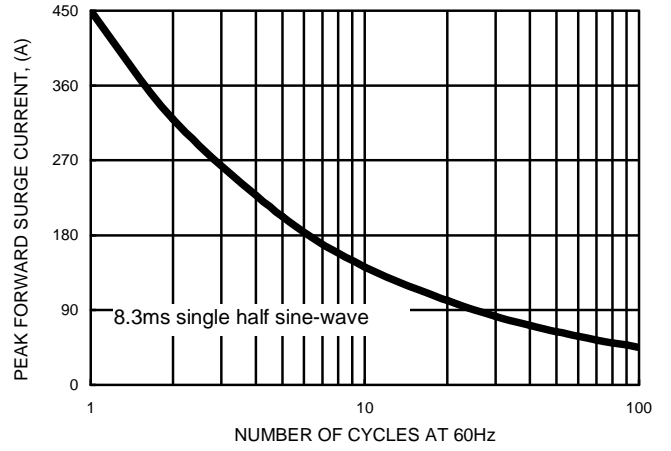


FIG.3- TYPICAL FORWARD CHARACTERISTICS

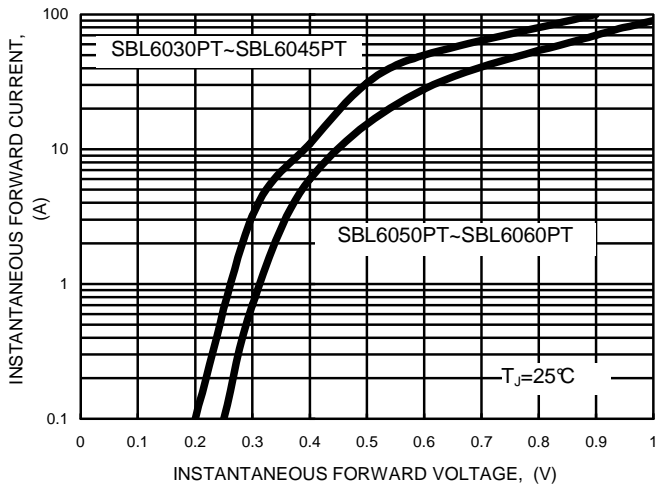


FIG.4- TYPICAL JUNCTION CAPACITANCE

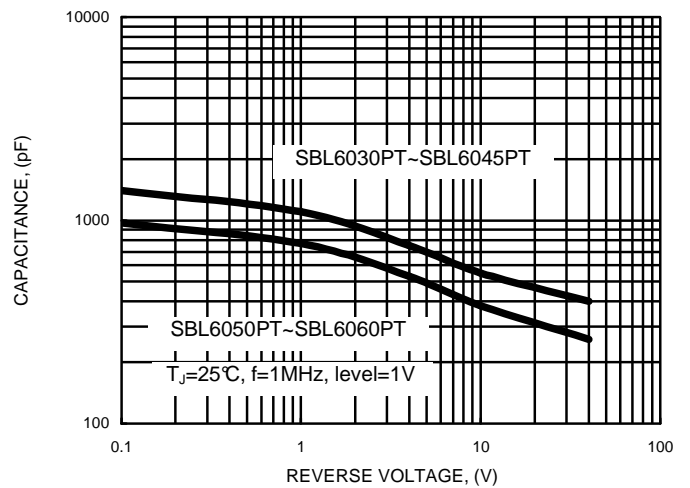
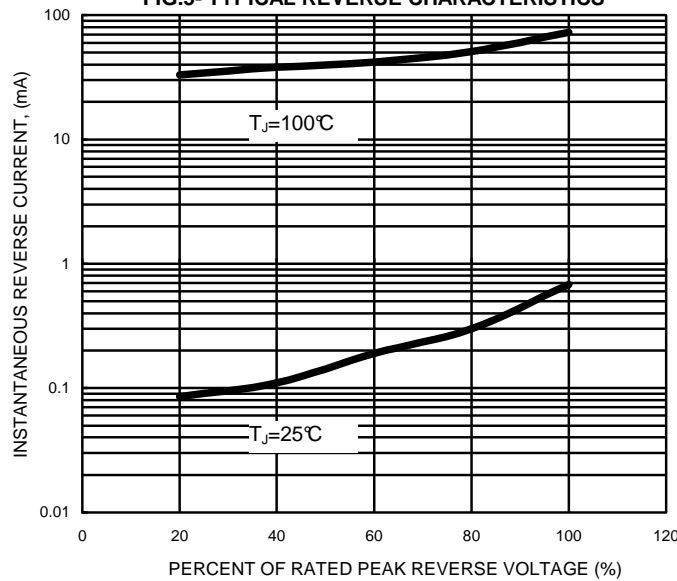


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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