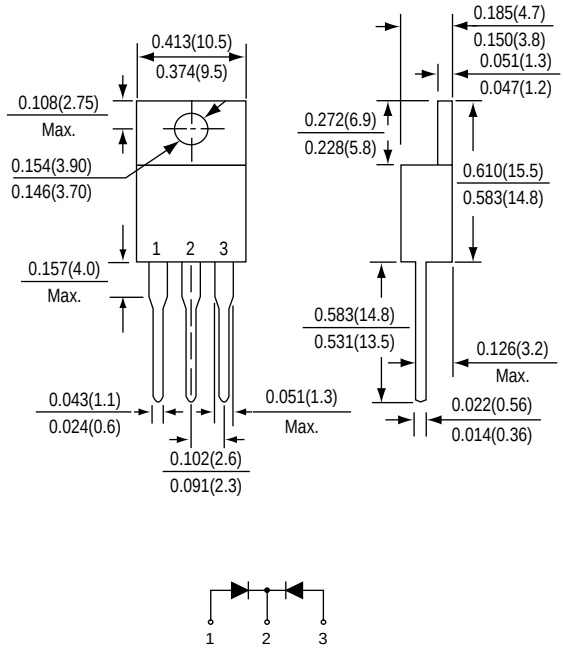
SBL2040CT THRU SBL2060CT

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 to 60 Volts *Forward Current - 20 Amperes*

TO-220AB



*Dimensions in inches and (millimeters)

FEATURES

* Lead free product
* Low forward voltage drop
* High current capacity
* High reliability
* High surge current capability
* Epitaxial construction
* Plastic Material-UL Recognition Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC TO-220AB molded plastic body
Terminals : Plated Leads, solderable per MIL-STD-750, Method 2026
Polarity : Molded on body
Mounting Position : Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***SBL2040CT***	***SBL2045CT***	***SBL2060CT***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	60	Volts
Working peak reverse voltage	V_{RWM}	40	45	60	
Maximum RMS voltage	V_{RMS}	28	31.5	42	
Maximum DC blocking voltage	V_{DC}	40	45	60	
Maximum average forward rectified current See Fig. 1	$I_{(AV)}$	20			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200			Amps
Maximum instantaneous forward voltage I_F= 10 A, T_A=25℃	V_F	0.55		0.70	Volts
Maximum DC reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	0.20 50			mA
Typical junction capacitance (Note 1)	C_J	650			pF
Typical thermal resistance (Note 2)	$R_{\theta JC}$	2.5			℃ / W
Operating temperature range	T_J	-50 to +150			℃
Storage temperature range	T_{STG}	-55 to +150			℃

Note : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V.
2. Thermal resistance junction to case.

RATINGS AND CHARACTERISTIC CURVES SBL2040CT THRU SBL2060CT

FIG.1 - FORWARD CURRENT DERATING CURVE

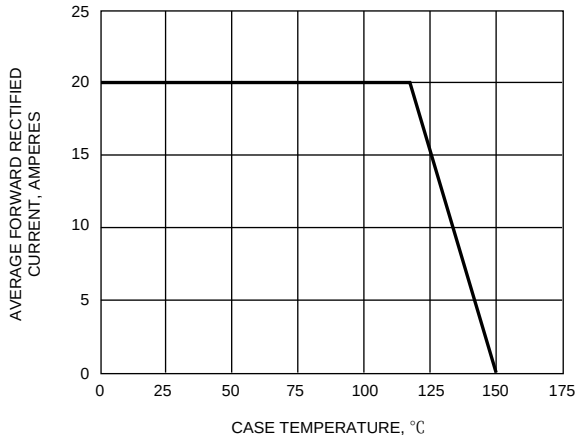


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

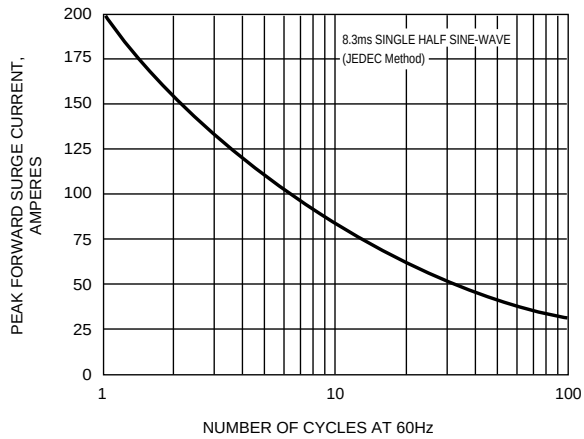


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

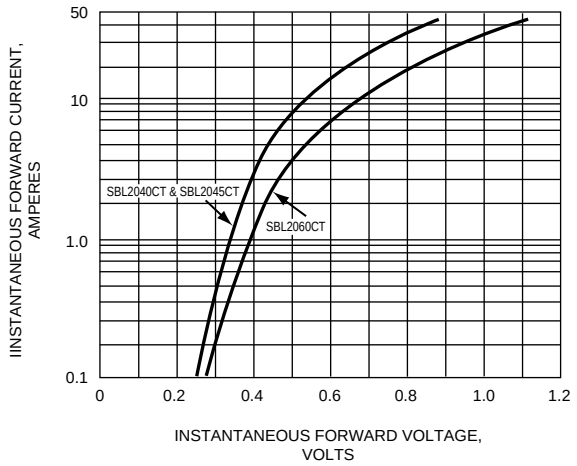


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

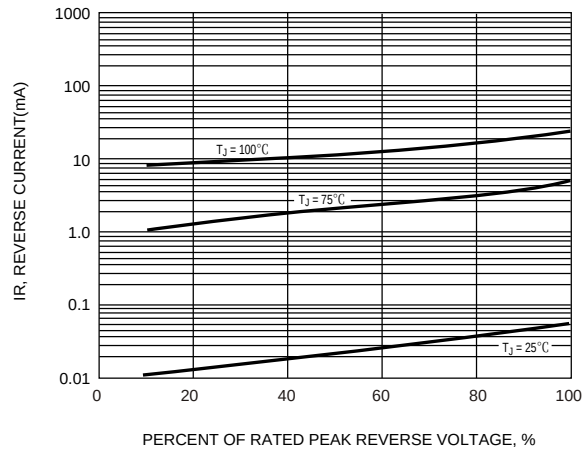


FIG.5 - TYPICAL JUNCTION CAPACITANCE