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Data Sheet No. SBDR-601-1B

6 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High switching capability
- High surge capability
- High reliability

RoHS COMPLIANT

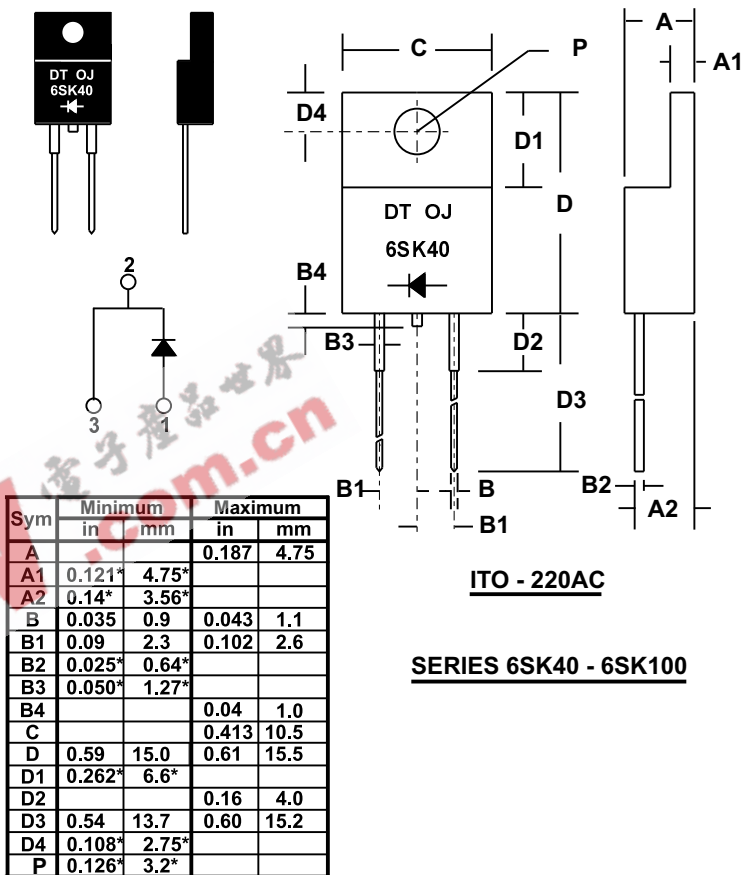
MECHANICAL DATA

- Case: TO-220 molded epoxy (Fully Insulated)
(U/L Flammability Rating 94V-0)
- Terminals: Rectangular pins w/ standoff
- Solderability: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Diode depicted on product
- Mounting Position: Any
- Weight: 0.06 Ounces (1.7 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF
TO-220AC PACKAGE

FULLY INSULATED PACKAGE



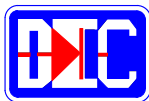
* These dimensions are "Typicals".

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS					UNITS
Series Number		6SK40	6SK50	6SK60	6SK70	6SK100	
Maximum DC Blocking Voltage	V _{RM}	40	50	60	70	100	VOLTS
Maximum RMS Voltage	V _{RMS}						
Maximum Peak Recurrent Reverse Voltage	V _{RRM}						
Average Forward Rectified Current @ T _c =100 °C	I _o	6					AMPS
Peak Forward Surge Current (8.3ms single half sine wave superimposed on rated load)	I _{FSM}	120					
Maximum Forward Voltage at 6 Amps DC	V _{FM}	0.55		0.65		0.85	VOLTS
Maximum Average DC Reverse Current @ T _J = 25 °C At Rated DC Blocking Voltage @ T _J = 100 °C	I _{RM}	0.5 50			0.1 25		mA
Typical Thermal Resistance, Junction to Case (on heat sink)	R _{θJC}	3					°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150					°C

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6 AMP SCHOTTKY BARRIER RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SERIES 6SK40 - 6SK100

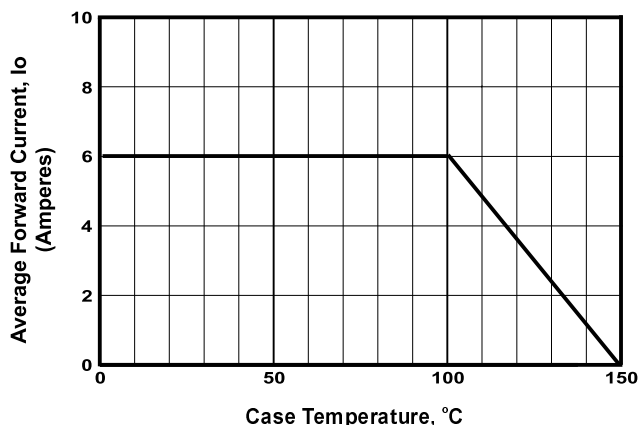


FIGURE 1. FORWARD CURRENT DERATING CURVE

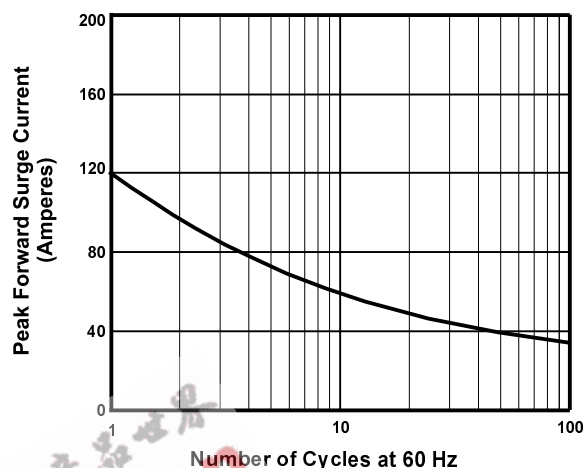


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

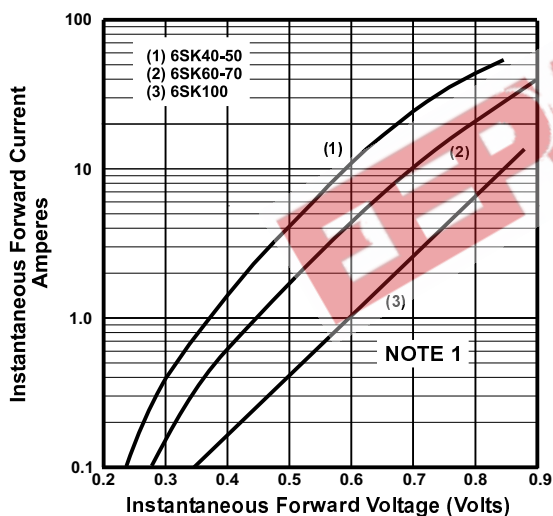


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

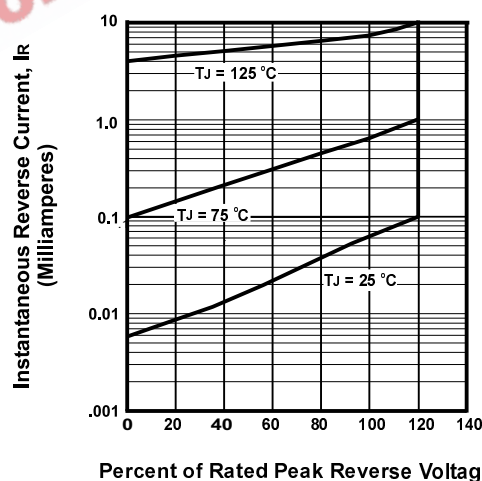


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

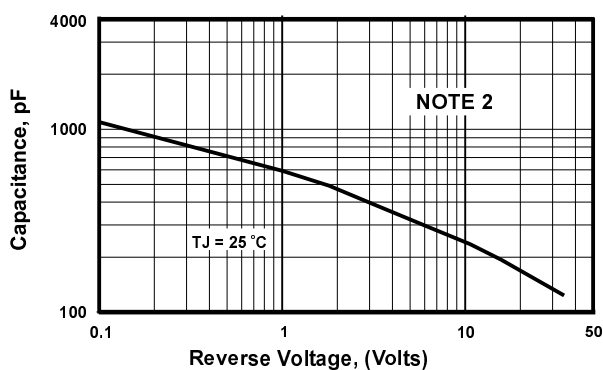


FIGURE 5. TYPICAL JUNCTION CAPACITANCE

NOTES

- (1) $T_J = 25^\circ\text{C}$, Pulse Width = 300 μSec , 2.0% Duty Cycle
- (2) $T_J = 25^\circ\text{C}$, $f = 1\text{ MHz}$, $V_{\text{SIG}} = 50\text{ mV P-P}$