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Data Sheet No. SBDT-1600-1B

16 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

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

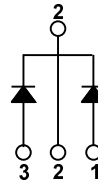
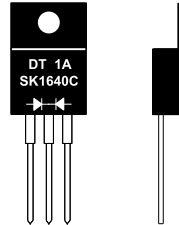
RoHS COMPLIANT

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 (1.75 Grams)

MECHANICAL SPECIFICATION

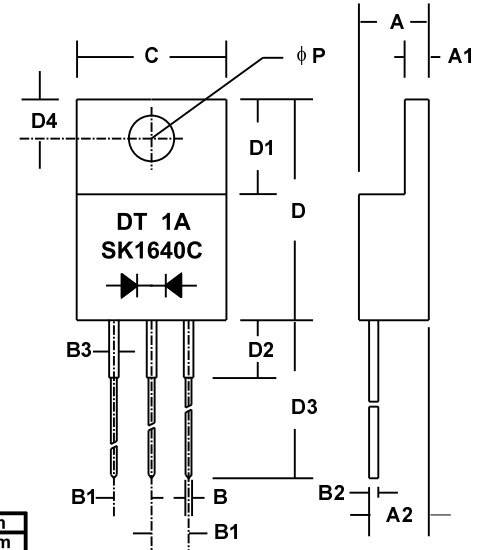
ACTUAL SIZE OF
TO-220AB PACKAGE



Sym	Minimum		Maximum	
	in	mm	in	mm
A			0.187	4.75
A1	0.055*	1.4*		
A2	0.14*	3.56*		
B	0.035	0.9	0.043	1.1
B1	0.09	2.3	0.102	2.6
B2	0.028*	0.66*		
B3	0.051*	1.3*		
C			0.410	10.4
D	0.59	15.0	0.61	15.5
D1	0.25*	6.4*		
D2			0.16	4.0
D3	0.53	13.5	0.57	14.8
D4	0.108*	2.75*		
P	0.141*	3.58*		

* These dimensions are "Typicals".

FULLY INSULATED PACKAGE



ITO-220AB

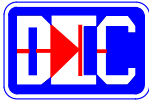
SERIES SK1640C - SK16100C

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		SK 1640C	SK 1650C	SK 1660C	SK 1670C	SK 16100C	
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 = 110 °C	I _O	16					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I _{FSM}	160					
Maximum Forward Voltage Drop (per diode) at 8 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 = 125 °C	I _{RM}	0.5 50			0.2 10		mA
Typical Thermal Resistance, Junction to Case (on heat sink)	R _{θJC}	1.5					°C/W
Junction Operating Temperature Range	T _J	-65 to +150					°C
Storage Temperature Range	T _{STG}	-65 to +175					

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16 AMP SCHOTTKY BARRIER RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SERIES SK1640C - SK16100C

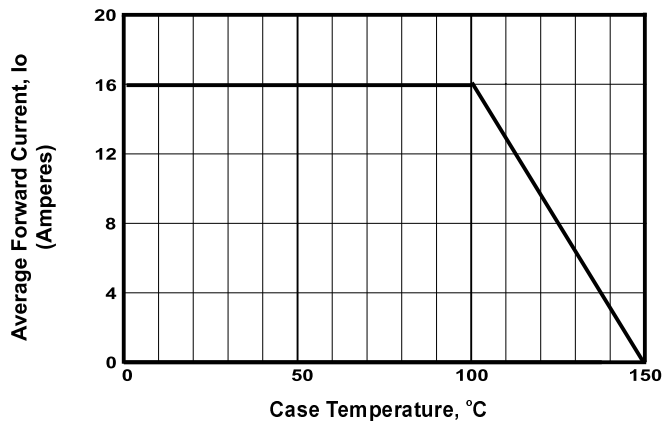


FIGURE 1. FORWARD CURRENT DERATING CURVE

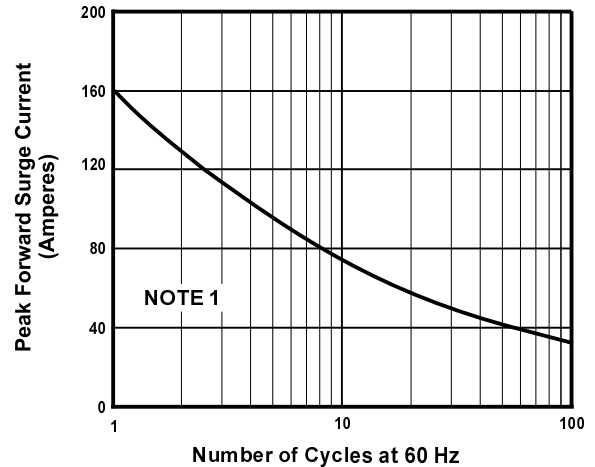


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

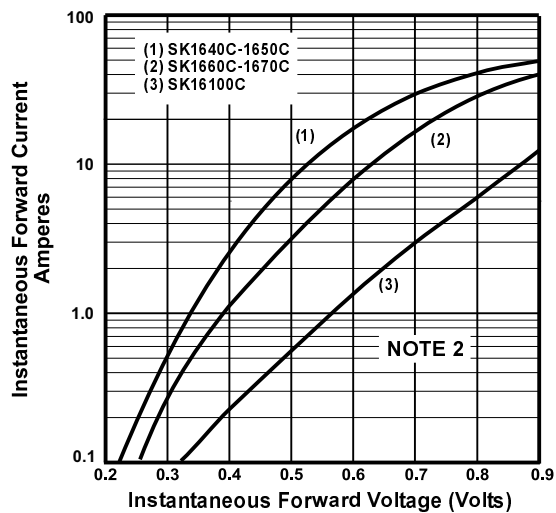


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

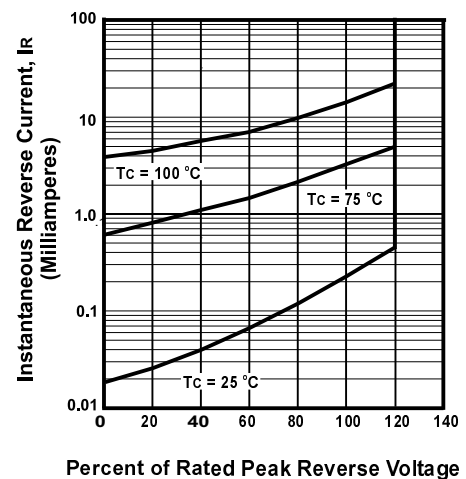


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

NOTES

- (1) JEDEC Method, 8.3 mSec. Single Half Sine Wave
- (2) $T_J = 25^\circ\text{C}$, Pulse Width = 300 μSec , 2.0% Duty Cycle
- (3) $T_c = 25^\circ\text{C}$, $f = 1.0\text{ MHz}$, $V_{SIG} = 50\text{ mV P-P}$

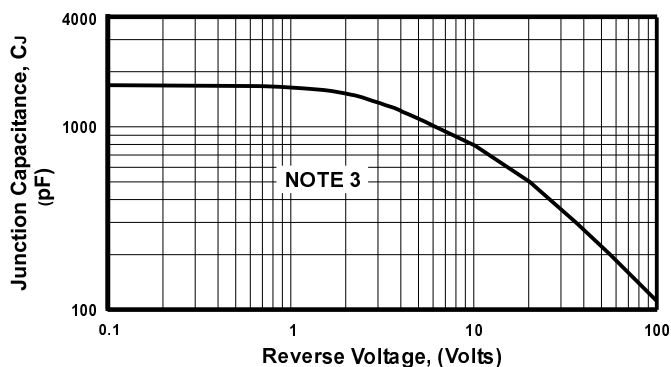


FIGURE 5. TYPICAL JUNCTION CAPACITANCE