

30 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

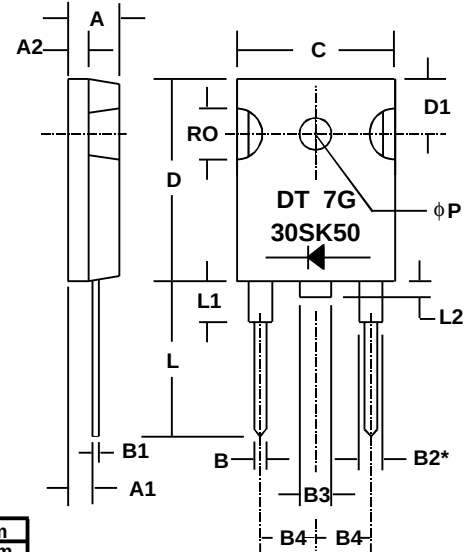
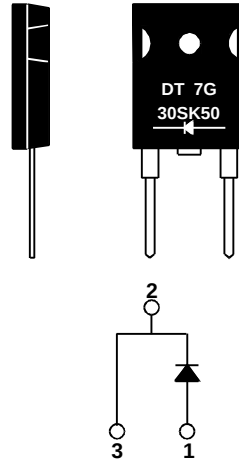
- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High switching capability
- High surge capability
- High reliability

MECHANICAL DATA

- Case: TO-247 (TO-3P) molded plastic (UL 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: 0.20 Ounces (5.5 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE TO-247AC
(TO-3PAC) PACKAGE



* Applies to Pins 1 and 3

Sym	Minimum		Maximum	
	in	mm	in	mm
A	0.19	4.82	0.205	5.2
A1	0.087	2.21	0.102	2.6
A2	0.075	1.9	0.085	2.16
B	0.045	1.14	0.055	1.4
B1	0.022	0.56	0.032	0.81
B2	0.079	2.01	0.094	2.39
B3	0.116	2.95	0.126	3.2
B4			0.215	5.46
C	0.602	15.29	0.625	15.88
D	0.776	19.7	0.799	20.3
D1	0.209	5.31	0.224	5.69
L	0.559	14.2	0.582	14.8
L1	0.146	3.71	0.189	4.8
L2			0.063	1.6
RO	0.209	5.3	0.224	5.7
ϕP	0.13	3.3	0.145	3.7

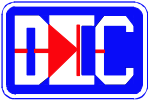
TO-247AC (TO-3PAC)

SERIES 30SK40 - 30SK70

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		30SK30	30SK40	30SK50	30SK60	30SK70	
Maximum DC Blocking Voltage	V _{RM}	30	40	50	60	70	VOLTS
Maximum RMS Voltage	V _{RMS}						
Maximum Peak Recurrent Reverse Voltage	V _{RRM}						
Average Forward Rectified Current @ T _c = 100 °C	I _O	30					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I _{FSM}	600			450		
Maximum Forward Voltage at 30 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}	1 100					mA
Typical Thermal Resistance, Junction to Case (on heat sink)	R _{θJC}	1.3					°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150					°C



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RATING & CHARACTERISTIC CURVES FOR SERIES 30SK40 - 30SK70

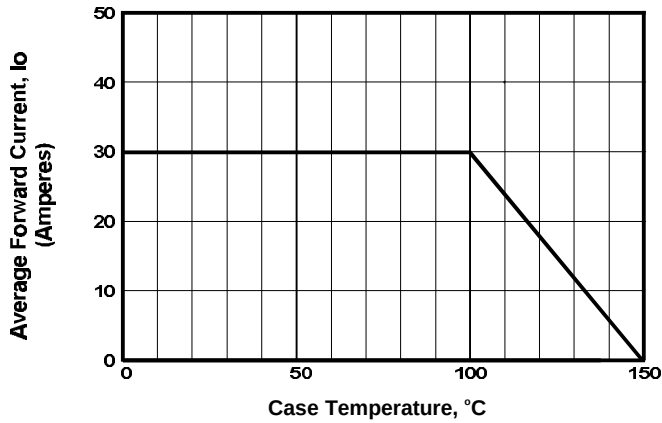


FIGURE 1. FORWARD CURRENT DERATING CURVE

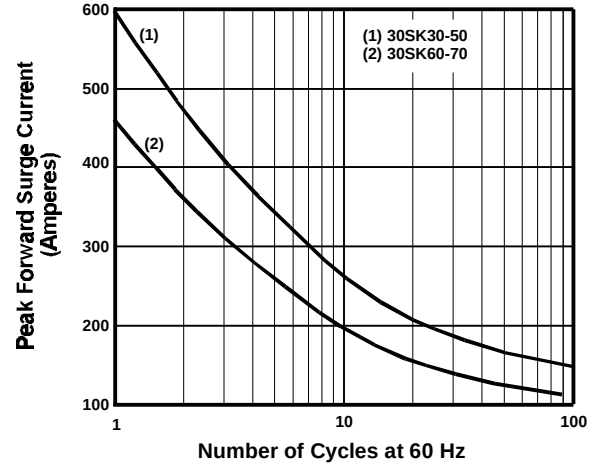


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

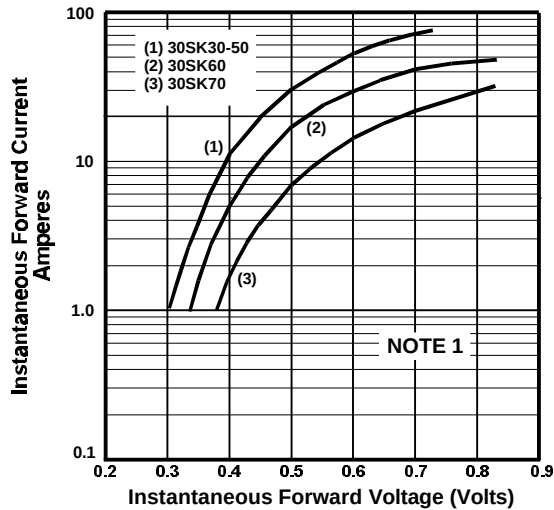


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

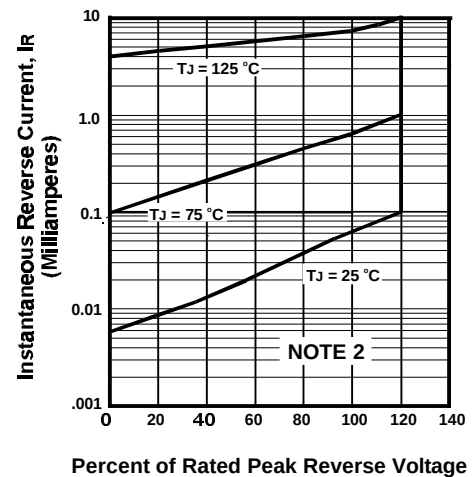


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

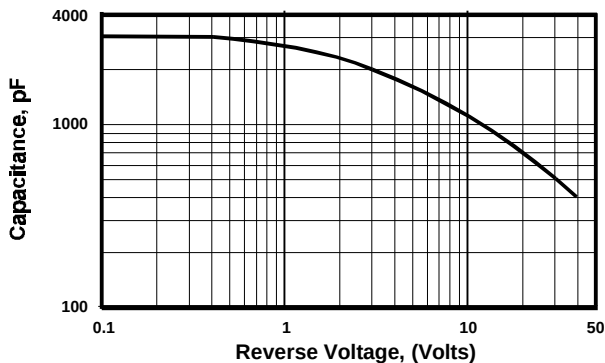


FIGURE 5. TYPICAL JUNCTION CAPACITANCE

NOTES

- (1) T_J = 25 °C, Pulse Width = 300 μSec, 2.0% Duty Cycle
- (2) T_J = 25 °C, f = 1.0 MHz, V_{SIG} = 50 mV P-P