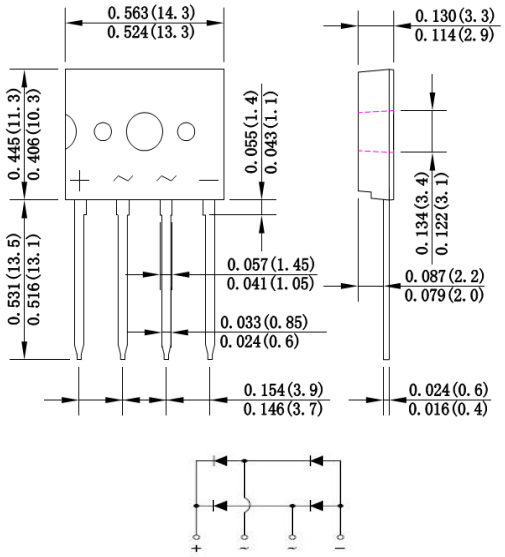
D6KB05~D6KB100

Single Phase 6.0Amp Glass passivated Bridge Rectifiers

D3K

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250℃/10 seconds at terminals



Dimensions in inches and (millimeters)

Mechanical Data

Case : Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any

Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	D6KB 05	D6KB 10	D6KB 20	D6KB 40	D6KB 60	D6KB 80	D6KB 100	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current with heatsink	$I_{(AV)}$	6.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0							A
Rating for fusing (t=8.3ms, Ta=25℃)	I^2t	93.4							A^2s
Maximum instantaneous forward voltage at 6.0A	V_F	1.10							V
Maximum DC reverse current T_A =25℃ at rated DC blocking voltage T_A=125℃	I_R	5.0 500							uA
Typical junction capacitance (Note 1)	C_J	56.0							pF
Typical thermal resistance	R_{qJA}	55.0							°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							°C

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

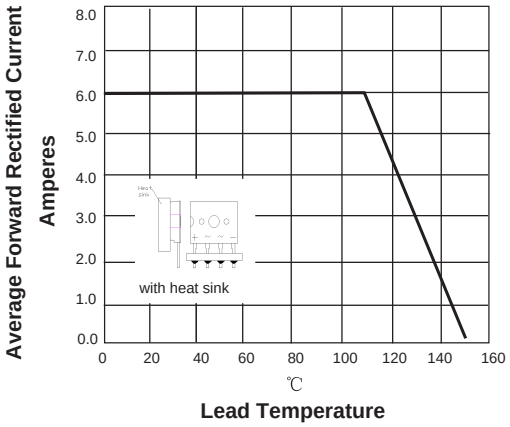


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

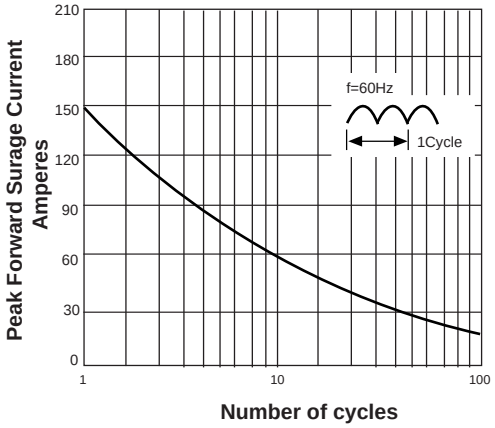


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

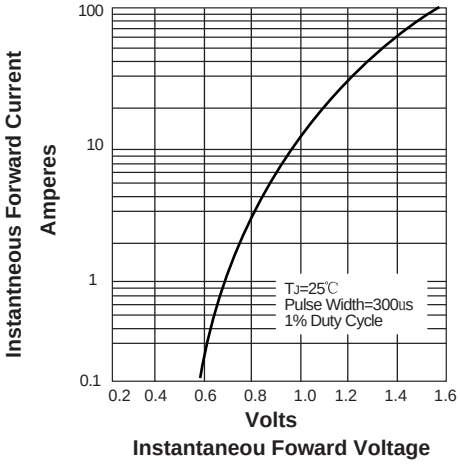
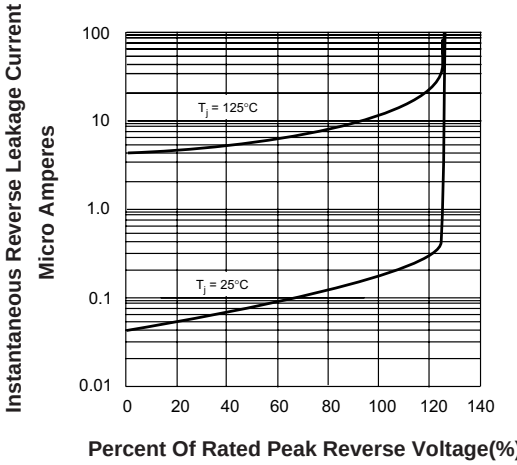
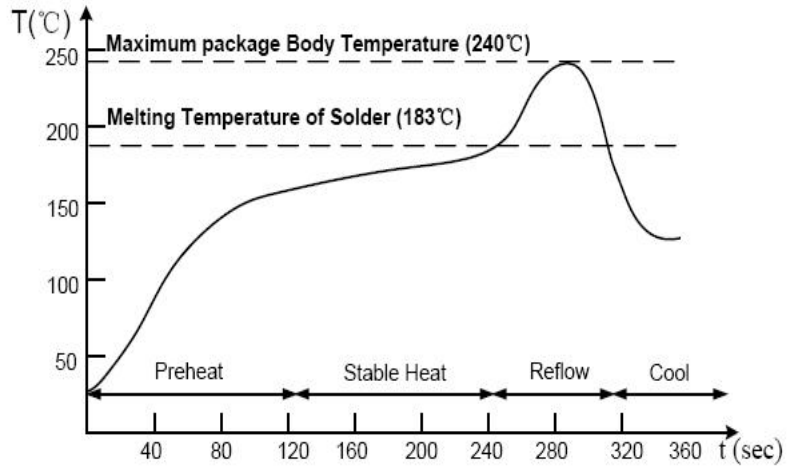


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Tube Package

Package	Tube (mm)	Q'TY/Tube (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
D3K	445*30.7*5.6	0.03	495*130*70	1.2	520*370*155	6