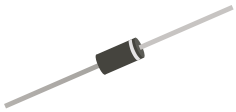
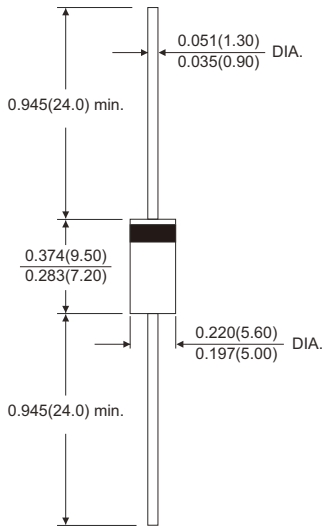
General Purpose Silicon Rectifiers

6A05S-G Thru. 6A10S-G

Reverse Voltage: 50 to 1000 V
Forward Current: 6.0 A
RoHS Device



DO-27



Dimensions in inches and (millimeter)

Features

- Open junction chip.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 250°C/10 seconds at terminals.

Mechanical data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: DO-27, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode.
- Weight: 0.98 grams approx.
- Mounting position: Any.

Circuit Diagram

Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	6A05S-G	6A1S-G	6A2S-G	6A4S-G	6A6S-G	6A8S-G	6A10S-G	Unit
Maximum recurrent 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 @T_L=100°C	$I_{(AV)}$	6.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200							A
Max. instantaneous forward voltage at 6.0A	V_F	1.1							V
Max. DC reverse current at rated DC blocking voltage T_A=25°C T_A=125°C	I_R	10 500							μA
Typical junction capacitance (Note 1)	C_J	100							pF
Typical thermal resistance	$R_{\theta JL}$	40							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 ~ +150							°C

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

Rating and Characteristic Curves (6A05S-G Thru. 6A10S-G)

Fig.1 - Derating Curve Output Rectified Current

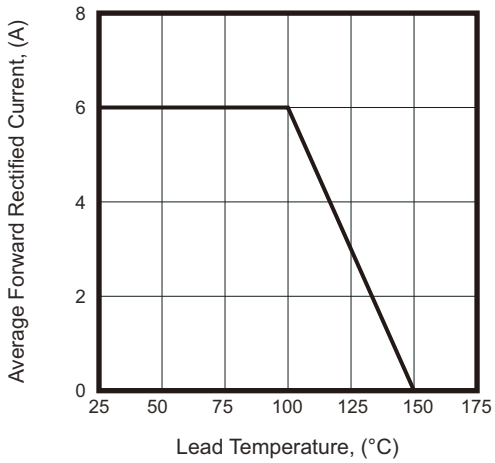


Fig.2 - Max. Non-Repetitive Peak Forward Surge Current Per Leg

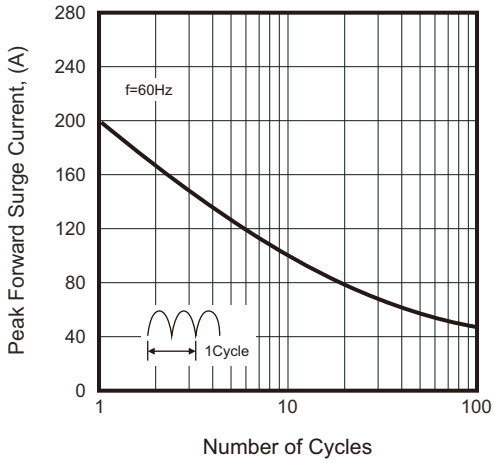


Fig.3 - Typical Forward Voltage Characteristics

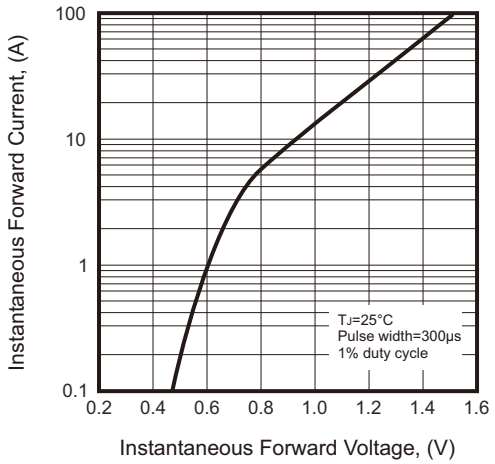
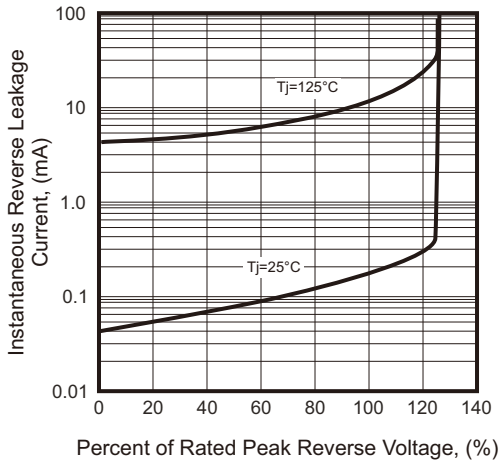
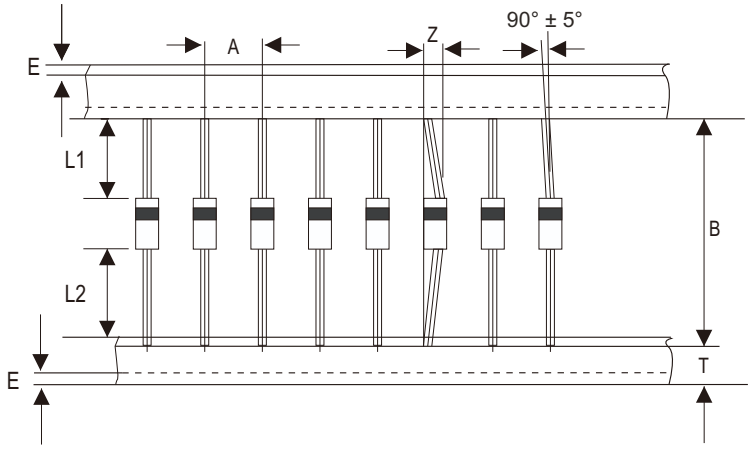
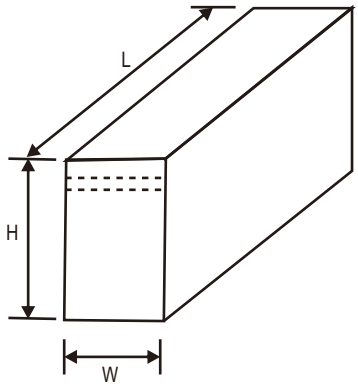


Fig.4 - Typical Reverse Leakage Characteristics



Taping Specification For Axial Lead Diodes





	SYMBOL	A	B	Z	T	E	|L1-L2|
DO-27	(mm)	10.00 ± 0.50	52.40 ± 1.50	1.20 (max)	6.00 ± 0.50	0.80 (max)	1.00 (max)
	(inch)	0.394 ± 0.020	2.063 ± 0.059	0.047 (max)	0.236 ± 0.020	0.031 (max)	0.039 (max)

	SYMBOL	L	W	H
DO-27	(mm)	255.00	150.00	75.00
	(inch)	10.039	5.906	2.953

Marking Code

Part Number	Marking code
6A05S-G	6A05S
6A1S-G	6A1S
6A2S-G	6A2S
6A4S-G	6A4S
6A6S-G	6A6S
6A8S-G	6A8S
6A10S-G	6A10S

XX = Product type marking code

Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	CARTON (pcs)
DO-27	1,250	12,500