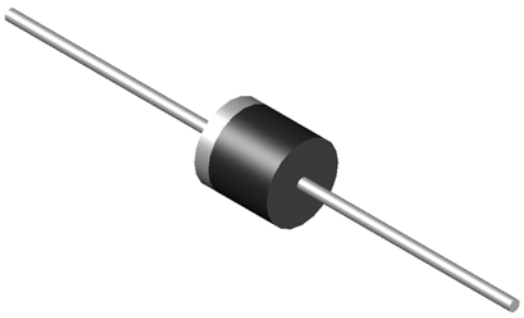
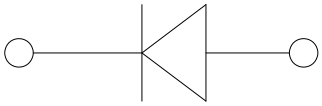
General Purpose Rectifier





Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

- **Package**: R-6

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:**Color band denotes cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	P6A05G	P6A1G	P6A2G	P6A4G	P6A6G	P6A8G	P6A10G
Device marking code			P6A05G	P6A1G	P6A2G	P6A4G	P6A6G	P6A8G	P6A10G
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, Ta =75℃	$I_{F(AV)}$	A	6.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	200						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			400						
Current squared time @1ms≤t8.3≤ms Tj=25℃，Rating of per diode	I^2t	A^2s	166						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	45						
Storage Temperature	Tstg	℃	-55 ~ +150						
Junction Temperature	Tj	℃	-55 ~ +150						

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	P6A05G	P6A1G	P6A2G	P6A4G	P6A6G	P6A8G	P6A10G
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=6.0A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	Tj =25℃	2.5						
			Tj =125℃	100						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	P6A05G	P6A1G	P6A2G	P6A4G	P6A6G	P6A8G	P6A10G
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	12						

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
P6A05G~P6A10G	D1	Approximate 1.95	500	500	5000	Tape
P6A05G~P6A10G	C1	Approximate 1.95	100	100	5000	Bulk

■ Characteristics (Typical)

FIG.1: Io-Ta Curve

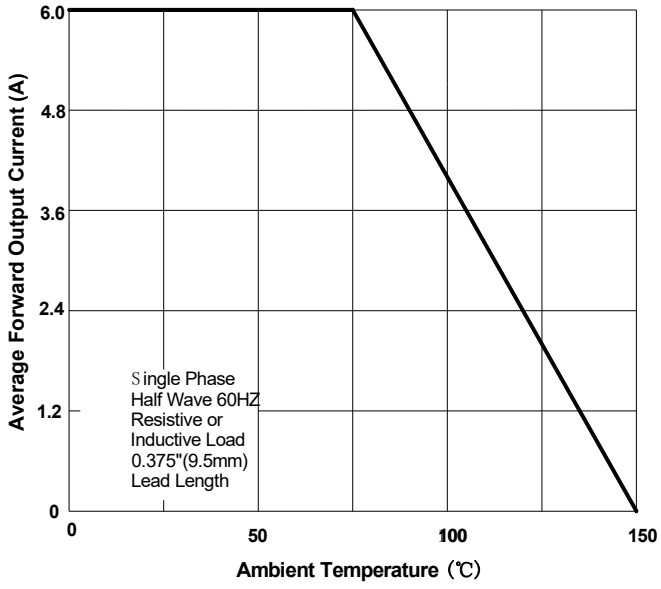


FIG.2: Forward Surge Current Capability

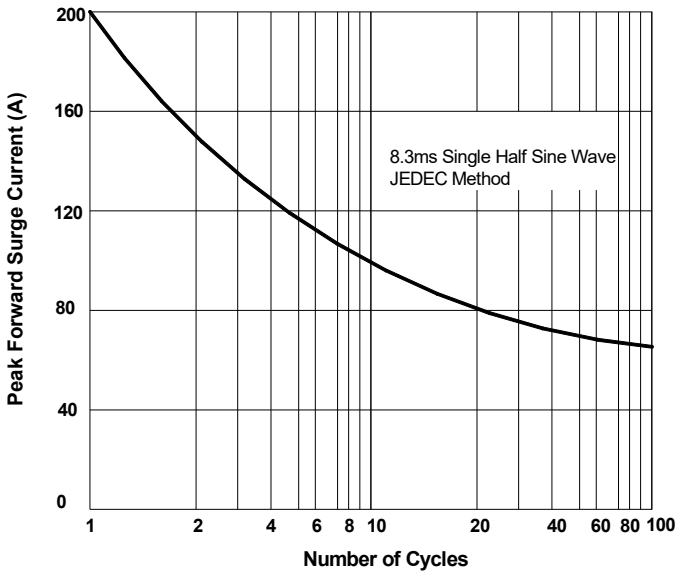


FIG.3: Forward Voltage

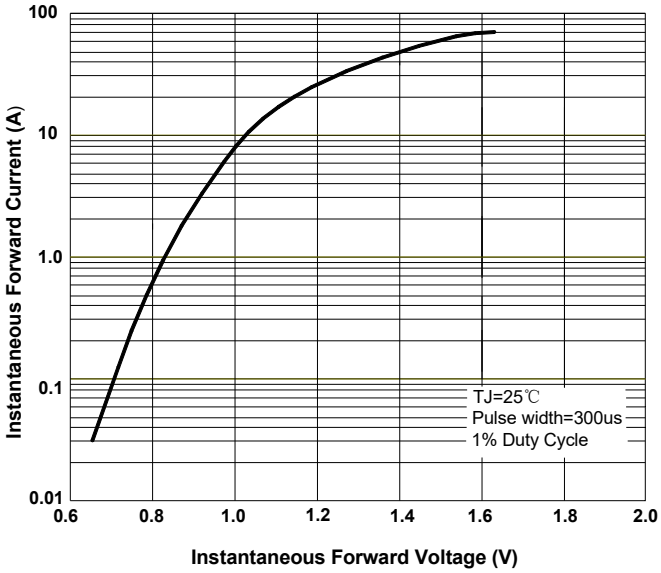
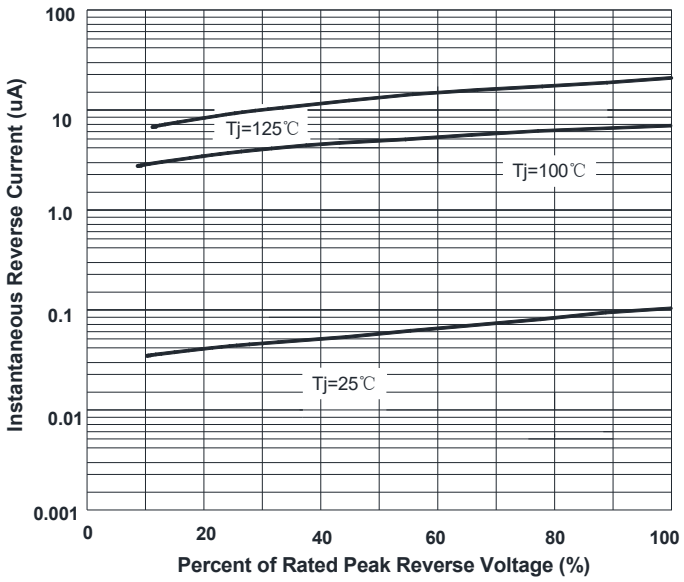
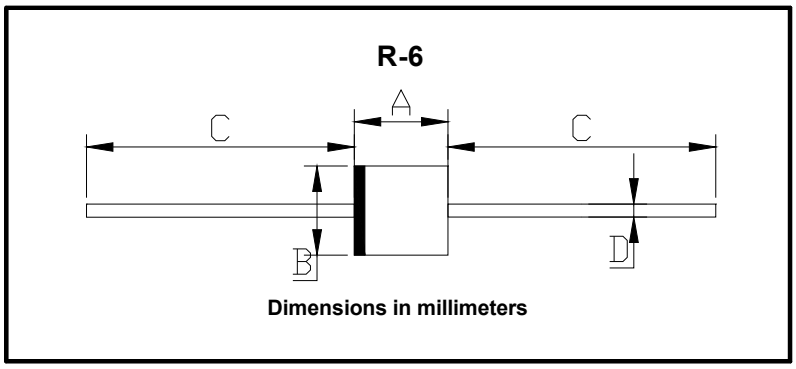


FIG.4: Typical Reverse Characteristics



■ Outline Dimensions



R-6		
Dim	Min	Max
A	8.60	9.10
B	8.60	9.10
C	25.4	/
D	1.20	1.32

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.