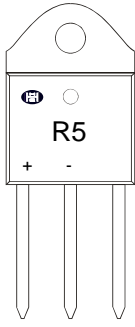
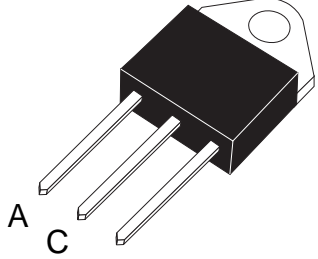
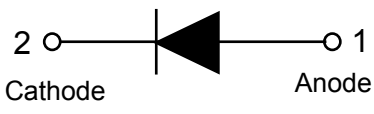




50A/1600V GENERAL PURPOSE RECTIFIER DIODE

<p>DESCRIPTION</p> <ul style="list-style-type: none"> ◆ Plastic package has underwriters laboratories -flammability classification 94V-0 ◆ Glass passivated chip junction ◆ Lead free in compliance with EU -RoHS 2011/65/EU directive ◆ Low forward voltage drop 		<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ◆ Case: TOP3, molded plastic -over passivated junction ◆ Terminals: Solderable per -MIL-STD-750, method 2026 ◆ Weight: 4.826 g 			
					
Marking and pin Assignment		TOP3 top view		Symbol	

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1600	V
Maximum ono-repetitive peak reverse voltage	V_{RSM}	1760	
Maximum RMS Voltage	V_{RMS}	1120	
Maximum DC blocking voltage	V_{DC}	1600	
Maximum forward voltage @ $I_F=50A$	V_F	1.2	
Maximum average forward current at $T_L=100^\circ C$	$I_{F(AV)}$	50	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	600	
Maximum DC reverse current at rated DC blocking voltage	$T_J=25^\circ C$	5	μA
	$T_J=150^\circ C$	1500	
Typical junction capacitance $V_R=4.0V$, $f=1MHz$	C_J	240	pF
Operating junction and storage Temperature range	T_J, T_{stg}	-60 to +150	$^\circ C$

THERMAL RESISTANCES

Parameter	Symbol	Value	Unit
Junction to case	$R_{th(j-c)}$	4	$^\circ C/W$



TOP3 PACKAGE MECHANICAL DATA

	Dimensions				
	RET.	Millimeters		Inches	
		Min.	max.	Min.	Max.
	A	4.40	4.60	0.173	0.181
B	1.45	1.55	0.057	0.061	
C	14.35	15.60	0.565	0.614	
D	0.50	0.70	0.020	0.028	
E	2.70	2.90	0.106	0.114	
F	15.80	16.50	0.622	0.650	
G	20.40	21.10	0.803	0.831	
H	15.10	15.50	0.594	0.610	
J	5.40	5.65	0.213	0.222	
K	1.10	1.40	0.043	0.055	
L	1.35	1.50	0.053	0.059	
P	2.80	3.00	0.110	0.118	
R	Typ. 4.35		Typ. 0.171		

TOP3 PACKAGE INFORMATION

Device Marking	Device	OUTLINE	Device Package	Net Weight (g/Pcs)	TUBE (Pcs)	Per Carton (Pcs)
HRD50A16S	R5	TAPING	TOP3	4.862	30	3600



CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

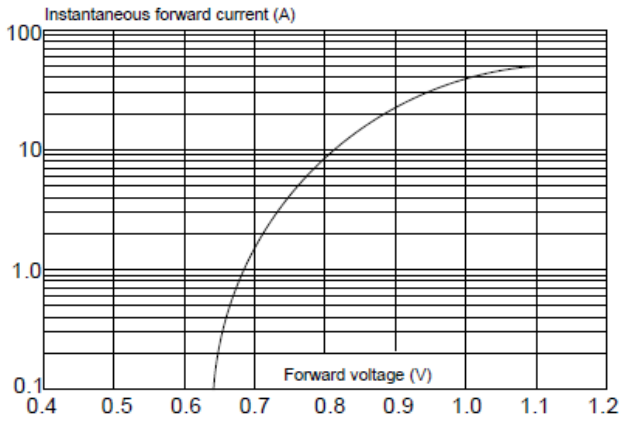


FIG.2: Typical reverse characteristics

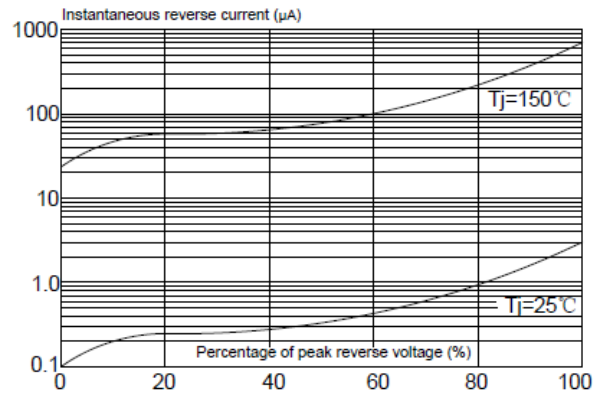


FIG.3: Maximum non-repetitive peak forward surge current

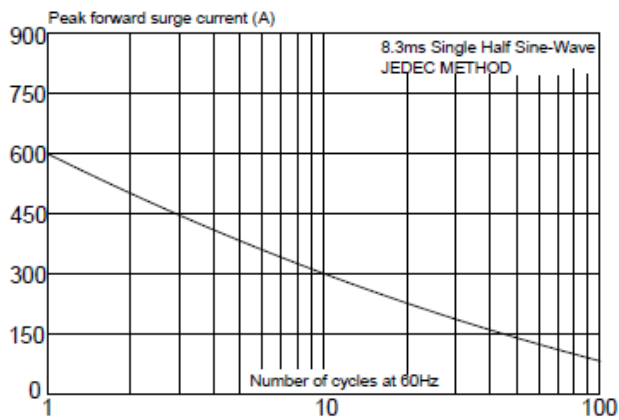
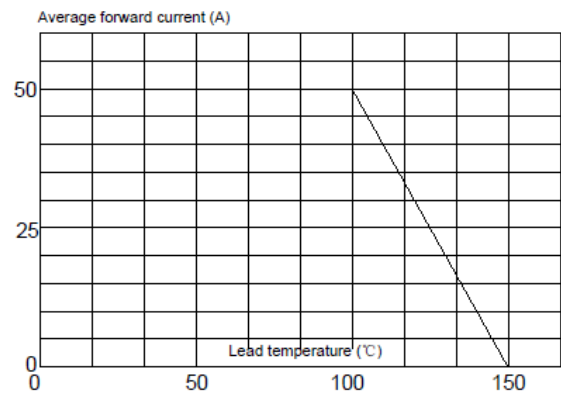


FIG.4: Forward current derating curve





Manufacturers version information

2020-08-01 , HAOHAI™ Product Data-1.0



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